

CHEMONICS INTERNATIONAL INC.



## An Assessment on the Development of Agricultural Initiatives for USAID/CAR

USAID/CAR Task Order:  
Central Asia Agricultural Assessment  
RAISE IQC Contract No.: PCE-I-818-99-00003-00

### **Tajikistan**

**Khujand, June 4 - 7, 2003**  
**Dushanbe, June 8 - 12, 2003**

**Submitted to:**

Wayne McDonald, Program Officer  
Cognizant Technical Officer  
U.S. Agency for International Development  
Central Asia Regional Mission

**Submitted by:**

Chemonics International Inc.  
Prime International Inc.

## TABLE OF CONTENTS

---

Executive Summary	i	
Terminology	viii	
Acronyms	viii	
SECTION A	Overview	1
	A1. Task Order Objectives	1
	A2. Perspectives and Methodology	2
	A3. Documents Used in This Report	2
SECTION B	Task Order Components	3
	B1. Examination of the Agricultural Sector	3
	B2. Examination of Donor Programs	28
	B3. Recommendations to the Mission	49
ANNEX A:	Tajikistan Country profile (Source: Library of Congress)	A-1
ANNEX B:	Cotton Sector Issues (Source: ADB)	B-1
ANNEX C:	Asian Development Bank – Agriculture Rehabilitation Project brief	C-1
ANNEX D:	Contact list for Tajikistan	D-1

## EXECUTIVE SUMMARY

---

Tajikistan, one of the poorest countries in the world, is ranked 103<sup>rd</sup> out of 162 countries by the 2001 Human Development Index (HDI). The United Nations Food and Agriculture Organization (FAO) 2002 special report on Tajikistan states that 83 percent of the population cannot afford the minimum consumption basket and that 33 percent of the population lives in extreme poverty.

Agriculture provides about 27 percent of the country's GDP, 40 percent of the country's exports, and more than 50 percent of employment. Only 7 percent of the land is suitable for agricultural and 90 percent of that depends on irrigation. Cotton is the primary export crop, but it requires use of appropriate fertilizers, protection chemicals, and crop rotation to replenish soils. Tajik farmers lack finances and access to quality inputs and have not been practicing effective crop rotation. The result has been low cotton yields and quality.

High value alternative crops would be fruits and vegetables for which the region has a historic reputation. Movement into these higher value crops beyond household plot production will take time and much agricultural training. Trends are moving slowly in this direction; household plots of about 0.1 hectare are heavily planted with onions, tomatoes, carrots, potatoes, strawberries and other berries. Larger production, however, requires improved processing capacity. Tajikistan now depends upon old factories with Soviet equipment and inefficient communications, transportation, and storage systems.

The Government of Tajikistan (GOT), hampered by a six-year civil war, has limited capacity and resources. Revenues from its primary exports, cotton and aluminum, have fallen during the past few years. The Government of Tajikistan's 2001-2005 policy strategy's primary goal is to increase productivity to pre-independence levels. The process will involve privatizing all state or collective farms by the end of 2005.

The privatization approach is intended to provide each worker on former collective farms a portion of land depending on the size of the former collective and the number of workers. However, obtaining the certificate of land rights has been both difficult and expensive because of excessive bureaucracy, an archaic registry system, and rent-seeking officials. What actually happens is that the farm manager of the collective convinces the workers to continue to operate the farm as in the past. Because farm workers rarely understand their rights, they are easily manipulated into assigning or subleasing their land lease rights to the newly formed entity. The worker may be given a small dividend from the annual production, and a small piece of land to grow crops for his family. In many cases, the local farm manager and the deputy *hukumat* (who assigns legal rights in the devolution of farms) collude and jointly establish a joint stock company or other enterprise to which the farm workers assign their legal land rights. In most cases, little operational change of the old farm operations occurs.

Tajikistan law does not currently provide a clear mortgage mechanism for enabling creditors to lend against these land rights and foreclose to obtain loan repayment if the farmer defaults. Without these, commercial banks will refrain from financing most farmers, who

will be left to obtain expensive financing from microfinance institutions or informal moneylenders.

The Ministry of Agriculture declared that the first government priority is for food security and thereafter to improving the quality, quantity, and markets for Tajik food products. They need strong technical assistance in agronomic and farm management practices, and concentrated assistance and coordination of existing donor programs. The Ministry is also committed to improving the quality of agroprocessing and the markets for processed food products by encouraging the provision of: workshops on the latest trends in the industry, particularly in containers, packaging and market presentation; and improved transportation, storage, and market development infrastructure.

Tajikistan's economy depends on irrigated agriculture. The Water Code adopted in 2000 provides a basis for the formation of water users' associations. These government-mandated entities will be responsible for operations and management of the tertiary systems and contribute to the cost of maintaining the secondary and primary systems through water charges payable to the local water entities. However, the entire process calls for guidance by the Ministry of Land Reclamation and Water Resource and a gradual transformation of the relationship between the water user associations and water management entities.

### **General integrated agriculture and water resource development model**

The consultants recommend that USAID consider designing an integrated agriculture and water resource development activity adapted to local conditions within Tajikistan. We use the term integrated from two perspectives: 1) the integration of value-chain participants (production, processing, marketing, allied industries, and market intermediaries) into a systems approach; and 2) the integration of mutually beneficial donor funded activities into a targeted geographic area to capture potential synergies among existing donor projects.

Within a geographic area, the integrated approach would focus existing resources in pilot hydrographic units based on proximity to existing donor resources. This activity would also focus on agro-industries in the water unit such as a fruit and vegetable or cotton industry. Why target enterprises within a hydrographic unit? There are a number of reasons, notably, enterprises in a hydrographic unit: 1) share similar agroclimatic conditions, 2) are part of a common and structured community, 3) share similar constraints and opportunities for growth, 4) have a common enabling/regulatory environment, 5) can provide a more effective water management approach, and 6) enhance the ability to foster necessary cooperation and trust.

The rationale for an integrated approach is based on the need to: 1) facilitate transition from Soviet planned agriculture to market-oriented system, 2) focus on land issues because many agricultural development issues revolve around land rights, ownership, use, including the ability to buy sell and mortgage land, 3) mediate, if not resolve, land tenure and water management issues, 4) recognize sustainable agricultural development including production, processing, finance, and marketing activities, and 5) create synergies among donor projects by focusing diversified resources on common problems.

The primary goal of this approach would be to demonstrate to the GOT how to achieve sustainable growth, through increased efficiency, in agricultural production, processing, and marketing enterprises and the networks in which they operate. Secondary to this goal, the approach will help: 1) reduce poverty, 2) manage natural resources, 3) contribute to national food security objectives, 4) ensure increased revenues for agricultural producers and rural citizens, and 5) build private/public partnerships, sustainable enterprise, and linkages among participating beneficiaries. These goals are consistent with government strategies and thus their willingness to support targeted pilot programs.

### Critical issues

The primary criteria for the selection of a targeted geographic area (hydrographic unit), is the presence of significant donor activity. Implement where resources are available and strive to create synergies among existing projects.

*Caution.* The consultants are not suggesting that USAID and other donor projects integrate their entire work plans to focus on this single geographic or hydrographic unit. We recognize that that would be impractical, if not impossible. What we are suggesting, however, is that the individual projects can dedicate a small portion of their expertise and resources to collaborate in the development of the integrated approach in the target area. For example, in the case of Kyrgyzstan, the LARC project has 18 offices in Kyrgyzstan, so let us suggest that they locate one office in the target area. Likewise, GTZ conducts agronomic training for farmers throughout Osh and other regions. They will be requested to implement a number of their well developed training modules in the target area. Also, IFDC can implement one demonstration field; MASHAV can implement one drip irrigation activity, etc. The consultants believe that limited, agreed upon, and targeted collaboration is possible within a defined geographic area and will produce the synergies expected to the mutual benefit of all participants.

*Coordination and management.* To be effective, USAID should designate a senior coordinator—a “czar”—to manage the recommended integrated activity. The “czar” should: 1) have extensive business development experience, 2) be able to work independently from any one project, 3) be mandated to liaise with projects, donors and officials, 4) be responsible for developing donor project “integration strategy,” 5) have the authority to negotiate individual MOUs with all pertinent projects, 6) be responsible for monitoring and evaluating impact, 7) facilitate inter-country linkages, 8) be tasked with the collection donor project data on needed policy reform that can be used to foster agro-industrial growth, and 9) be responsible for the dissemination policy reform data and memoranda to interested trade associations and business groups who are able to advocate for policy reform.

### Approach

The Integrated Agriculture and Water Resource Development Activity could be organized into the following four components that correspond with the components of existing donor projects, such as the EDP project:

- A: Agro-industry Strategy Development and Policy Reform
- B: Association and/or member organization development

- C: Business Advisory Services
- D: Business and Market Linkages

### **Component A: Agro-industry Strategy Development and Policy Reform**

This component would respond to two important needs: 1) agro-industries lack comprehensive strategies for their own development, and 2) agro-industry entrepreneurs can and should lead policy reform efforts.

- Agro-industry strategy development: The objective of an agro-industry strategy development would be to bring entrepreneurs together in order to develop agro-industry strategies, where strategies define objectives, constraints, and resource requirements and inform specific action plans. These strategies would be used to orient TA to focus on opportunities and constraint mitigation.
- Policy reform: The objective of the policy reform activity would be to condition the enabling environment in which these enterprises operate. This would be accomplished by: identifying and prioritizing policy constraints throughout value chain (coordinate information sharing); utilizing agro-industry council's local knowledge and influence to promote policy reform; and by collaborating with associations and NGO's to advocate for reform.

### **Component B: Association and/or Member Organization Development**

The objective of an association development component would be to encourage entrepreneurs to form effective member organizations in order to collaborate on 1) joint procurement and marketing mechanisms, 2) organized information diffusion, 3) recurrent training and capacity building, and 4) increase the market orientation of members and democratic processes.

There are different legal forms of member organizations and consideration should be given, depending on resources available in the targeted area. The fundamental question is to focus on a traditional association model or a corporate structure such as the IFC model.

### **Component C: Business Advisory Services**

The objective of the business advisory services is to increase business capabilities of producers, processors, and market intermediaries. The following needs have been identified for each of these three groups:

- Producers (land users) have limited or no agronomic or animal husbandry education, resource management training, market knowledge, or business skills
- Processors are reliant on old technologies and methods, are not market-oriented, unable to access credit, and they often collude with government
- Market intermediaries provide limited services.

## **Component D: Business and Market Linkages**

The objective of the business and market linkages component is to facilitate linkages among participants in agro-industry value chain, such as producer-processor linkages, finance linkages, market linkages, and public-private linkages.

The objective of the finance linkages task would be to facilitate financial linkages between borrowers and creditors, in that there is a need to provide a menu of technical financial assistance options depending on country's formal financial climate.

### **Recommendations for Tajikistan**

#### **Recommendation 1: Northern Tajikistan – Sughd Region (Khujand/Isfara) Integrated agriculture and water resource development activity**

The Enterprise Development Project (EDP) report dated February 2003 noted that the Sughd Region of Northern Tajikistan has an extraordinary abundance of fruit and vegetables. Moreover, the fruit and vegetable processing sector includes more than 20 plants and glass jar production facilities that are important to the producers. This region also contains a growing number of edible oil production processors—a profitable business that should be considered part of the targeted agro-industry cluster. Implementing the integrated approach in Sughd *Oblast* should be a high priority for USAID because of the direct benefits to Tajikistan as well as benefits for regional initiatives in the Fergana Valley.

#### **Recommendation 2: Southern Tajikistan – Khatlon Region Integrated agriculture and water resource development activity**

The May 2003 EDP report on Khatlon *Oblast* noted considerable opportunity for supporting agricultural development. Diversified agricultural products and significant numbers of processors provide the foundation for an integrated development approach. The consultants recommend the EDP project develop a Khatlon regional office focused on agribusinesses advisory services to serve as the hub for integrated development activity. Implementing the integrated approach in Khatlon *Oblast* should also be considered by USAID because of the direct benefits to one of the poorest and most highly populated regions in Tajikistan.

#### **Recommendation 3: Collaboration with the IFC Farmer Ownership Model project**

The consultants were impressed with the IFC Farmer Ownership Model's attempts to resolve constraints on agricultural production, processing, and marketing for its membership. Utilizing an organization for the provision of technical assistance to improve production efficiency, resolve linkages with processors, and support marketing initiatives for its members is a fine example of an integrated approach to agricultural development. We note that although the organization currently focuses on cotton production, processing and marketing, it is also involved in the fruit and vegetable industry. Recommended collaboration would include technical assistance for the development of a model ginnery and bonded warehouse.

Model ginnery. USAID should support IFC efforts to identify a U.S. ginning equipment supplier interested in promoting its equipment in Central Asia. The IFC intends to request assistance from the US TDA for feasibility analysis and equipment export funds. USAID could provide technical assistance for training model ginnery staff in maintenance and management of the equipment. USAID could also support periodic demonstration days by co-supporting ginnery managers from throughout Tajikistan, Uzbekistan, Kyrgyzstan, and Kazakhstan.

Bonded warehouse. The issue of proving grading services to international standards is currently under discussion with the Ministry of Agriculture, the ADB and World Bank (IFC). The ADB and IFC would like to have the GOT adopt international standards such as the USDA standards and grading system for cotton. The Ministry of Agriculture is ready to adopt Tajik standards that may or may not be compatible with international standards.

The consultants recommend: 1) that USAID join the pending ADB and past IFC initiatives to advocate for the adoption of USDA cotton standards and grading system. The ADB will finance a TA to conduct an assessment of the costs and benefits of a Tajik program versus adopting international standards, whereas USAID should facilitate institutional dialogue between Ministry of Agriculture decision makers, ADB/IFC project managers, and cotton grades and standards technical experts provided by USAID; 2) USAID provide short-term technical assistance to the IFC member organization activity if the GOT adopts or plans to adopt international cotton standards and grading system.

#### **Recommendation 4: Implementation of legal advisory centers**

The consultants believe that the legal advisory services project implemented in Kyrgyzstan by Helvetas, with USAID support, provides desperately needed legal advice to rural farmers. This successful model should be expanded or applied in Tajikistan (targeted North and South areas) to include land and water user rights education as well. These advisory centers would offer an effective complement to the business advisory centers already supported by USAID.

Expand or apply the Kyrgyzstan LARC program model to Tajikistan to: 1) facilitate the provision of legal advisory services to local farmers regarding land and water rights, state order, inputs contracts, freedom of production decision, right to market produce, grower delivery contracts with processors or associations, etc., 2) provide explanation and publicity of land rights of all newly privatized farms, 3) provide mediation services to local farmers regarding national and local government, and 4) facilitate preparation of grower and deliver contracts for promoting private vertical integration of production and processing.

#### **Recommendation 5: Support for cotton industry reform**

Tajikistan governmental bodies are institutionally weak with low capacity at virtually all levels to understand and foster appropriate governmental facilitation of a free market economy. Focused activities that encourage the government to establish an appropriate legal and regulatory framework for a segment of the economy and then to observe the economic growth in that sector that the governmental support facilitates would be the best use of technical assistance funds.

In this regard, an opportunity exists for establishing a commercial cotton grading system in accordance with international standards under the umbrella of a government regulatory framework. This approach would likely result in cotton buyers having more confidence in the quality and consistency of Tajik cotton and therefore pay for the quality that Tajik cotton represents. Tajik cotton producers would receive higher value for their cotton and be able to reinvest money in better inputs, machinery and infrastructure for cotton production. They would be able to afford reasonable rates for water user association for water delivery to support rehabilitation and maintenance of irrigation systems. Although textile firms will be paying more for Tajik cotton, they would know that Tajik cotton bales were graded consistently, lowering resorting and grading costs at the textile firms.

Targeted technical assistance in this area would not be very expensive, be relatively easy to implement—particularly if the government simply put the current government testing facilities up for leasing tender to international testing firms as SGS or Wakefield & Company—and generate industrial effect and revenue growth almost immediately. Because the Tajik economy is so agriculturally focused and cotton representing a high percentage of the sector’s revenue, a successful cotton grading system program would have immediate and dramatic growth effect on the economy.

### **Regional issues**

The consultants recommend that USAID considers the potential benefits of developing a Ferghana Valley approach that further integrates Kyrgyz (Osh), Uzbek (Ferghana), and Tajik (Khujand/Isfara) activities.

The EDP offices in Osh, Ferghana, and Khujand offer a unique opportunity to advocate enhanced regional trade. Pragma has already implemented joint tri-country trade workshops focused on increased trade among the three countries. These initiatives should be enhanced with participation with other donor projects to create desired synergies. The proposed Fergana Valley seal of quality is an example of the type of regional initiative that could facilitate regional trade and further market integration.

## TERMINOLOGY AND ACRONYMS

---

### TERMINOLOGY

<i>Dekhan</i>	Small private farms of three to five hectares resulting from the privatization of state ( <i>sovkhov</i> ) and collective ( <i>kolkhoz</i> ) farms
<i>Hukumat</i>	<i>Raion</i> governmental administration unit
<i>Jumat</i>	Sub- <i>raion</i> ( <i>village</i> ) governmental unit
<i>Kolkhoz</i>	Cooperative farm created during Soviet times.
<i>Oblavodkhov</i>	Regional water management unit
<i>Oblast</i>	Regional administrative unit
<i>Oily Maglis</i>	Parliament of the Republic of Tajikistan.
<i>Raion</i>	Sub- <i>oblast</i> (district) governmental unit
<i>Raivodhoz</i>	District water management unit
<i>Sonomi</i>	Currency of Tajikistan
<i>Sovkholz</i>	State farm created in Soviet times
<i>Zum</i>	Bazaar

### ACRONYMS

ABA	American Bar Association
ADB	Asian Development Bank
CAIP	Community Assistance Investment Program
CAR	Central Asian Republic
CBO	Community-Based Organization
CEELI	Central and Eastern European Law Institute
CIDA	Canadian International Development Association
CIS	Commonwealth of Independent States
CPC	Crop Protection Chemicals
CSFB	Credit Suisse First Boston
EBRD	European Bank for Reconstruction and Development
EDP	Enterprise Development Project
ECU	European Currency Unit
EF	Enterprise and Finance
EW	Energy and Water
FAO	United Nations Food and Agriculture Organization
FOM	Farm Ownership Model
FTF	Farmer to Farmer
FY	Fiscal Year
GAA	German Agro Action
GOT	Government of Tajikistan
GDP	Gross Domestic Product
HDI	Human Development Index
HIPC	Highly Indebted Poor Country
IDA	International Development Association

IFC	International Finance Corporation
IFI	International Finance Institution
IMF	International Monetary Fund
MDSC	Microentrepreneurs Development Support Center
MECU	Million European Currency Units
MFI	Microfinance Institution
MLRWR	Ministry of Land Reclamation and Water Resources
MOU	Memorandum of Understanding
MSMDP	Mountain Societies Development Support Program
NABW	National Association of Business Women
NGO	Nongovernmental Organization
NBT	National Bank of Tajikistan
O&M	Operations and Maintenance
PCI	Peace Community Initiative
PEP	Private Enterprise Partnership
PIU	Project Implementation Unit
RRDP	Rural Reconstruction Development Project
SDC	Swiss Development Corporation
SECO	Secretariat for Economic Affairs
SME	Small and Medium-scale Enterprises
TA	Technical Assistance
TACIS	Technical Assistance to the Commonwealth of Independent States
TIP	Trade Investment Project
TLSS	Tajikistan Living Standards Survey
UNDP	United Nations Development Program
UNITAR	United Nations Training Institute
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VAT	Value Added Tax
WB	World Bank
WUA	Water Users Association



## SECTION A

---

### Overview

USAID/CAR provides assistance to the agricultural sector in the Central Asian Republics primarily in the areas of water management and agribusiness development. Management of this assistance is the responsibility of the office of Energy and Water (EW) for water and the office of Enterprise and Finance (EF) for agri-business. USAID/CAR commissioned this assessment of agricultural activities and including water resources to expand and strengthen the Mission's assistance to the sector.

#### A1. Task Order Objectives

The overall objective of this task order is to help the Mission determine the nature and scope of additional needed agricultural sector activities. The consultants were asked to look at many aspects of the sector, including production, policies, institutions, and agribusiness development and to identify salient trends that will effect future developments.

The goal of the activity is to determine the critical issues for an effective agricultural assistance program that builds on the strengths of existing programs and falls within the Mission's strategic plan.

The specific tasks of the scope of work include:

- An overall assessment of the agricultural sector in four CAR countries
- An examination of the programs of: (a) other donors, (b) USAID related activities, and (c) International Finance Institutions (IFIs)
- Recommendations for new assistance activities that address critical issues to better enable the offices of EW and EF to reach their Strategic Objectives.

Added to the scope of work during the mission:

- The assessment team should provide, in as much detail as possible, recommendations that the team believes necessary to advance agricultural development relative to, but not necessarily limited to, agricultural policy reform, land reform, agricultural market reform, agricultural credit, agricultural inputs, increased local organizational development and autonomy within the agricultural sector, water user associations and farm level water management.
- These detailed recommendations do not necessarily have to be within the context of the current USAID program; rather, they should reflect what the assessment team believes necessary to promote a more efficient and effective agricultural development program.

## **A2. Perspectives and Methodology**

The consultants' approach to assessing agriculture and water has been driven by the need to focus on development of the private sector and management of water resources. The nature of private sector development is a strong indicator of the trends in agriculture and water and the constraints limiting growth in agriculture and responsible water resource management. We have made no assessment of the country's macroeconomic conditions, inflation or currency stability; we only report on others' assessments to provide context.

This assessment is not meant to be comprehensive. Some agriculture and water sub-sectors are not mentioned, as they may not have a major impact on current growth trends. Our focus and perspective draws heavily on past experiences in transitional economies in recognition of the stages or phases that transitional economies normally experience.

The consultants spent very little time in each country for this assessment. Obtaining concrete, factual information and data when the economy or government is in flux is difficult. Accordingly, the nature of the assignment and the time permitted required the consultants to develop a composite assessment based on documents, interviews, and professional judgments made in synthesizing complex and sometimes conflicting information and data. This report reflects the consultants' best collective professional judgment in providing USAID as clear and current a picture as possible on agriculture and water in Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan.

## **A3. Documents Used in This Report:**

1. USAID, EDP Project, 2003, Assessment of Khatlon *Oblast* – Agro-industries.
2. USAID, EDP Project, 2003, Agro-industry Assessment in Jalal-Abad, Sughd, and Andijan Regions of the Fergana Valley.
3. World Bank, 2000, Rural Infrastructure Rehabilitation Project, Appraisal Mission.
4. Asian Development Bank, 2002, Agricultural Rehabilitation Sector Development Project.
5. FAO, 2000, Special Report, Crop and food supply.
6. IMF, 2002, Tajikistan Poverty Reduction Strategy Paper.
7. IMF, 2003, Special Issues and Statistical Appendix.
8. World Bank, 1999, Farm Privatization Support Project, Project Appraisal Document.

## SECTION B

### Task Order Components

#### B1. Examination of the Agricultural Sector in Tajikistan

Tajikistan, one of the poorest countries in the world, is ranked 103rd out of 162 countries by the 2001 Human Development Index (HDI). The HDI measures a country's achievements in terms of life expectancy, education, and adjusted real income. The United Nations Food and Agriculture Organization (FAO) 2002 special report on Tajikistan states that 83 percent of the population cannot afford the minimum consumption basket and that 33 percent of the population lives in extreme poverty. Poverty is predominantly a rural phenomenon with the urban population 20 percent less likely to be poor. Tajikistan has an annual GDP per capita of less than \$200 but people in the rural areas see less than half that. Unemployment is officially 30 percent; other sources put the figure at a much higher level.

Foreign debt as of mid-2001 stood at more than US\$1.2 billion or 130 percent of GDP, almost all government or government-guaranteed loans. More than 90 percent of the loans are in US dollars and debt service alone requires 45 percent of its annual GDP. Tajikistan is likely to run a trade and current account deficit in the coming years that will force the country to reschedule its debts, further increasing its debt servicing burden with direct consequences for national food security. Aluminum and cotton account for more than 70 percent of foreign exchange earnings. Any variation in international prices of cotton fiber and aluminum has a direct impact on the national capacity to import, particularly food and inputs to produce food.

**Table 1. Tajikistan: Imports, Exports and Trade Balance, Calendar Year**

	1995	1996	1997	1998	1999	2000	2001	2002 <sup>1/</sup>
<b>Cotton fiber exports</b>								
Quantity (000 tons)	121	104	108	88	92	79	75	84
Value (US\$ million)	212	157	167	112	82	84	71	72
<b>Share in total export value (%)</b>	<b>27.2</b>	<b>20.4</b>	<b>22.4</b>	<b>19.1</b>	<b>12.3</b>	<b>10.6</b>	<b>10.9</b>	<b>10.3</b>
<b>Aluminum exports</b>								
Quantity (000 tons)	231	191	183	187	224	274	287	285
Value (US\$ million)	390	263	252	234	308	436	398	416
<b>Share in total export value (%)</b>	<b>50.1</b>	<b>34.2</b>	<b>33.8</b>	<b>39.9</b>	<b>46.2</b>	<b>55.1</b>	<b>61.2</b>	<b>59.4</b>
Other exports (US\$ million)	177	350	327	240	276	272	181	212
Total exports (US\$ million)	779	770	746	586	666	792	650	700

**Source:** State Statistical Agency and State Customs Committee Government of Tajikistan, 2002.

<sup>1/</sup> Based on EIU Price forecast, 7.6 percent decrease in cotton prices, 6.5 percent increase in aluminum prices.

<sup>2/</sup> Calendar year. Totals may not be exact due to rounding.

## B1a. Agricultural sector overview

Agriculture plays an important role in the Tajikistan economy, providing about 27 percent of the country's GDP, 40 percent of the country's exports and nearly 50 percent<sup>1</sup> of employment. Tajikistan has the most limited agricultural resources of the nations in the CAR. Nearly 70 percent of the 6.2 million population lives in rural areas and depends upon agriculture as the dominant economic activity. With only seven percent agricultural land and the rest mountainous, Tajik farmers have a difficult time gaining access to agricultural land. Almost 90 percent of all agricultural land depends upon irrigation. Despite the challenges, agriculture remains important to the economy.

Not surprisingly, agricultural yields dropped an average of 50 percent in the transition from the guaranteed market of Soviet times.<sup>2</sup> Government support for inputs dropped dramatically after independence and during the civil war from the lack of funds. Soviet era yields were typically higher than the norm for soil and climatic conditions due to heavy, uneconomical use of inputs—primarily fertilizers. More rational use of inputs and reduced access indicates that farmers responding to market signals and producing more profitable products, such as potatoes, tomatoes, and onions.

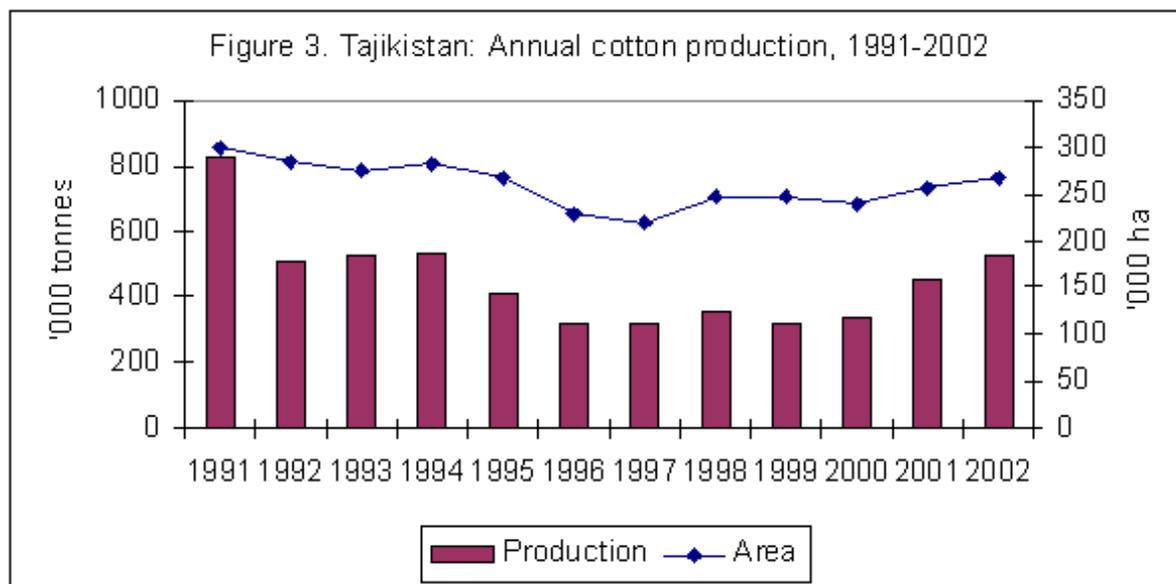
In an attempt to provide private input financing and stimulate higher cotton yields, the government of Tajikistan entered into an agreement with Paul Reinhardt Corporation of Switzerland to supply financing for Tajik farmers in exchange for cotton at harvest.<sup>3</sup> The fall of the cotton market during the last few years, poor internal Tajik distribution, and the difficult financing terms contributed to the dismal results of this financing approach. Many farmers are saddled with debts from a few years of financing, requiring them to continue to produce cotton to work off this debt. The initial financing has ballooned to more than \$100 million.

---

<sup>1</sup> According to the IMF 2002 Poverty Reduction Strategy, agriculture employs 64 percent.

<sup>2</sup> ADB, 2002, Ag rehab project, Cotton 1.5 tons per hectare; Wheat 1.2 tons per hectare.

<sup>3</sup> This so-called private financing has strong government involvement. The program started in 1996 with \$1 million in cotton input supply credit funded by Credit Suisse-First Boston (CSFB) through Paul Reinhardt, Ltd but guaranteed by the GOT through the National Bank of Tajikistan. Though lending in Tajikistan is certainly high risk, the terms were very unfavorable to borrowers particularly as the credits were guaranteed by the GOT. At the time, the GOT sovereign guarantee was considered appropriate as the bulk of the inputs went to state and collective farms. Farmers entered into a contract with one of ten local trading agents of Paul Reinhardt for cotton inputs (fuel, seeds, CPCs and fertilizers) valued at 70 percent of the highest price for cotton for the past year. Farmers gave their cotton to Paul Reinhardt, which paid the farmers the lowest annual price, charged 12 percent per annum interest on the loan, and gave the farmers the difference. The input credit worked very well the first year and was expanded to \$10 million in 1997 and to \$60 million in 1998 for inputs and agricultural machinery. Donovan Enterprises of Memphis, Tennessee also arranged a similar line through CSFB for \$10 million intermediated through five local trading agents. Then the bottom fell out of the cotton market with China's entry into cotton exporting and driving prices to below the production breakeven point between 1999 and 2000. Thereafter, the Tajik cotton farmers saw their annual debt ballooning rather than receiving any year end profits, but they had to continue growing cotton to pay off the debt to Paul Reinhardt and Donovan. In effect, this private/public guaranteed debt has restricted farmers into growing cotton or risk losing their land rights if the government had to cover its guarantee. The IMF saw the growing GOT guaranteed debt as a problem and required the government to have it restructured and privatized into the AgroInvest Bank (former state Agroprom Bank). On the international side, Paul Reinhardt and Donovan purchased the CSFB debt essentially canceling the government guarantee. The debt spiral is estimated as high as \$180 million, unsustainable for the cotton industry and presenting a high concentration of risk to the Tajik banking sector. Regardless of amount, this debt overhang has substantially indentured many Tajik farmers into continuing to grow cotton for sale to the debtors at low prices.



The irrigation system infrastructure was damaged by the civil war and by lack of repair and maintenance. The farms lacked funds and machinery to maintain the on-farm irrigation structures and government agencies lacked funding to maintain the highly energy intensive pumping system of the primary and secondary canals. Lack of universal government policies on cost recovery for delivery of water and repair and maintenance of the irrigation distorts farmer production decisions.<sup>4</sup>

Nevertheless, the Tajik economy has rebounded during the last five years, averaging GDP growth of seven to eight percent largely fueled by postwar economic stability measures and substantial support from donors and multilateral financial institutions. This growth largely came from postwar increased capacity of the TADUZ aluminum smelter and from some increased cotton production on acreage not planted during the war years now in production.

Tajikistan is desperate to develop income growth opportunities in the rural and agricultural sectors but the outlook is bleak. For Tajikistan, like many CAR countries, cotton has been the cash crop with an international market to generate foreign exchange. Commercial cotton production of good yields and quality requires optimal use of appropriate fertilizers and crop protection chemicals (CPC) combined with rotated crops, such as alfalfa, to replenish soils depleted by cotton. Tajik farmers cannot afford nor have ready access to quality fertilizers and CPCs and have not been practicing effective crop rotation. The result has been lower yields and cotton quality. The most common crop alternative has been wheat, giving farmers some family food security and some economic value.

As in other CAR countries, high value alternative crops would be fruits and vegetables for which the region has a historical reputation. Tajikistan has some areas of warm to subtropical climates that could produce numerous high value fruits and vegetables with proper irrigation and crop

<sup>4</sup> Some areas are functioning under water users associations that do establish water pricing for delivery and maintenance. However, water rates are low relative to the delivery and maintenance costs and frequently go uncollected.

management. These warmer climates may even produce three crops a year or more. Movement into these higher value crops beyond household plot production will take time and much agricultural training. Most farmers during Soviet times were workers on a *sovkhos* or *kolkhoz* and not generally educated or experienced in agronomic techniques or farm management practices. Consequently, they tend to plant what was planted on the *sovkhos* or *kolkhoz* where they worked and now work for the same farmer manager under a joint stock company or similar arrangement—cotton. Many would like to resist cotton due to the low gross margin, but local government and former farm manager collusion combined with heavy internationally funded input debt have forced many farmers to continue cotton production.

Some *sovkhoses* or *kolkhoses* produced stone fruit or vegetables, which are being continued. Wheat has been added as a security and cash crop. Given the fear of losing their land rights, lack of technical and marketing knowledge, and limited access to inputs, farmers are playing it safe by planting cotton or wheat on their *dekhan* farmland and fruits and vegetables on their household plots, from which they receive 80 percent of their income. Farmers have some knowledge of growing cotton and wheat, which have a ready market and longer storage value. The household plot produce is largely for the local markets.

Accelerated diversification into larger production of other crops would require agronomic training, access to appropriate inputs and technology, and marketing because high value crops require a market or integrated food-processing outlet to sell a large volume of fruit or vegetables within a narrow time window before the crop is lost or spoiled. As in other former Soviet republics, the market for Tajikistan agricultural products fell after the breakup of the Soviet Union and a prolonged civil war set back the Tajik transformation to a market economy even further. Farmers have tried to rebuild the market for their products, but it is a slow process due to their limited understanding of the market, limited market information, and lack of knowledge for growing a commercial quantity of quality products. Even where markets are developed, transportation has become high risk due to security and corruption.

Despite the lack of experience, trends are moving slowly in the direction of higher value products. Household plots of 0.1 hectare are heavily planted with onions, tomatoes, carrots, potatoes, strawberries and other berries. These products serve the family for food and provide some money from their sale in the local *zum* or bazaar. Some larger scale fruit and vegetable production is continuing in regions known for those products—such as tomatoes and apricots in northern Tajikistan. Processing in old Soviet equipment factories is proceeding with an attempt to develop a more commercially acceptable product.

This production needs better marketing to generate better revenues if firms are to build up capital to modernize their facilities. Tajikistan's very inefficient marketing structure is hampered by poor internal and external communications and transport systems—roads, railway, and terminal storage facilities. Some technical assistance currently provided is gradually showing market-driven results.

A federated association that includes associations of farmers, agroprocessors, entrepreneurs and cooperatives has worked its members to provide donor provided technical assistance in several key value chain areas. For example, it has worked with a number of agroprocessing and input

suppliers in the Khujand/Sughd region including two larger factories—a fruit and vegetable canning factory; a joint venture glass factory supported by EBRD; and several small processing facilities canning fruits and vegetables (mostly tomato paste and apricot preserves); a winery; several meat processing facilities; and a milk processing plant that specializes in cheese that is exported to three other CAR countries. Farmers have strong equipment needs to improve their crops and added value processing—tractors, small scale production equipment, miniplants for cheese and meat processing; and drying equipment for dried fruit and vegetable production.

## **B1b. Government policies and programs**

### **Economic and Agricultural Policy**

The Government of Tajikistan (GOT) has few policy choices and limited government institutional capacity to make and implement policy. The six-year civil war achieved few results, depleted the country of important resources, increased external debt in part for waging war, destroyed much of the Soviet era infrastructure, and put the country many years behind other former Soviet republics in transformation to a market economy. Tajikistan's high external debt requires mobilization of domestic deposits to finance economic growth, but the Tajik banking community has had poor experience in mobilizing or intermediating deposits.

Government policy has also fallen victim to the war. In order to achieve political settlement to the war, many disparate groups have been taken into the government. Some of these have exploited rent-seeking opportunities that government office can bring. This is more visible in local government, where locally based reforms, such as agriculture, are severely hindered. Implementation of appropriate reforms measures adopted at the national level has been very slowly with active local obstruction of reforms in various *raions*. Governmental institutional capacity dropped significantly in public administration, financial management, and the judicial system. Excessive licensing and inspections of businesses by a multiplicity of government agencies engenders corruption and slows business growth—a major constraint for small business.

Since 1995, illegal drug trafficking from Afghanistan through Tajikistan has grown gradually, particularly during the post-Taliban period. The lure of high profits for providing safe transit of illegal drugs has created a potentially dominant revenue factor in the Tajikistan economy. As some Latin American countries have learned, a heavy illegal drug component of the economy generates corruption and violence and retards investment and economic growth. The fragile peace in Tajikistan makes this issue potentially damaging for all sectors. As illegal drugs are frequently hidden among licit agricultural goods for transit, the drug trade may adversely affect wholesalers, traders, and transporters of agricultural products.

### **Business and Commercial Law**

Business and commercial laws of Tajikistan are largely inherited from the Soviet period with some changes but many important reforms remaining. For example, Titles I and II of the Civil Code dealing with the sale of goods, services, contracts and most commercial transactions is a substantial improvement over prior law in supporting a market economy. Title III of the Civil Code relating to intellectual property and inheritance is currently undergoing modification. The

Joint Stock Company law has simplified the establishment of commercial entities in a relatively inexpensive manner.

Commercial disputes are handled by economic courts according to a new Economic Procedure Code. These new courts have gained public use with a 750 percent increase in cases during the past year. However, with only 25 economic law judges with limited economic training there is an institutional limit to the new legislation.

After extensive training of judges, legislators, and potential trustees in bankruptcy and business liquidation law and procedure, a new bankruptcy code passed the *Oily Maglis* but has not yet been signed by the President. The President may refuse to sign the legislation because of serious weaknesses in timing of the proceedings.

The WB has initiated work on pledge law reform funding an initial assessment and follow on development of a pledge law and registry. The current pledge law is a significant burden on financing transactions adding three to five percent to the cost of a loan. A draft law has been prepared but there does not appear to be a government commitment to passage in the near term.

The licensing of businesses throughout national and local government Ministries, departments and agencies is bureaucratic, excessive, and prone to rent seeking. Licensing is the most cumbersome government regulation of business, providing little public value. Many ministries and government agencies require licensing applications and fees, special certificates, and government rent seeking fees. Small businesses are especially hurt in time and resources. Farmers and food processors often have to travel from rural areas and spend days trying to obtain the appropriate licenses to place their businesses on a fully legal and legitimate basis.

Most serious in development of commercial policy is the lack of coordinated legislative initiatives. The Ministry of Justice is responsible for coordination but multiple secret working groups in the *Oily Maglis* and other ministries often develop their own legislative proposals that are introduced into parliament with some success. This results in conflicts, particularly in the Civil Code, that create uncertainty for businesses and generates rent seeking opportunities within the government and judiciary that frustrates effective reform.

## Land Tenure

The government policy for privatizing the old Soviet *sovkhoses* and *kolkhozes* has been slow with limited effective economic results.<sup>5</sup> This reflects beliefs among many government officials that because arable land is scarce in Tajikistan, it should be owned by the government and leased to producers. Those who do not work their land forfeit it to others who will. Furthermore, others believe that reducing Tajik farmland to plots of less than one hectare will dramatically lower productivity. Nevertheless, more than 50 percent of the agricultural land of Tajikistan has been

---

<sup>5</sup> This account differs from the WB Farm Privatization Support Project PIU, which suggests that the process of privatization in its 10 farms targeted for privatization has worked well. The team received consistent contrary reports described here from numerous donor projects and NGOs.

privatized and the remainder of the state and collective farms must be privatized by the end of 2005.<sup>6</sup>

The government privatization approach is as follows: each worker on former *sovkhoses* or *kolkhoses* has first rights to receive land from the devolution of the farm. Each is supposed to receive a portion of land depending on the size of the former *sovkhos* or *kolkhoz* and the number of workers. Others in the community may receive land based on their application and demonstration that they will farm the land effectively. The local *hukumat* administration determines the allocation of the land, but obtaining the certificate of land rights has been both difficult and expensive. Farmers deal with numerous governmental bodies to receive the appropriate stamps to validate their land lease rights—state land committee, local *hukumat* and *jumat* authorities, notary, bank, Commission for Restructuring Agricultural Enterprises, tax authority, and Ministry of Justice to name a few. Each government stop requires time and presents rent-seeking opportunities for officials to extract money from fearful farmers. In addition, the land registry system is archaic and prone to errors.

What actually happens is quite different from what the law intends and appears to develop along several models. In general, the farm manager of the *sovkhos* or *kolkhoz* convinces the farm workers to continue to operate the farm as a single unit without splitting the land up into small plots. Farm workers rarely fully understand their lease rights and are easily manipulated into agreeing with the farm manager. Various legal forms have been used in different *raions*—joint stock companies, land lease enterprises, *dekhan* farm associations, or even collective farms. Each farm worker assigns or subleases his land lease rights to the newly formed entity. The farm worker may be given a small dividend from the annual farm production if there is a profit and a small piece of land to grow crops for his family. He may or may not continue to be engaged to work on the new enterprise and paid for his services. He may have to pay rent for the small plot to grow crops for the family.<sup>7</sup> In many cases, the local farm manager and the deputy *hukumat* (who assigns legal rights in the devolution of farms) collude and jointly establish a joint stock company or other enterprise form to which the farm workers assign their legal land rights. In most cases, little operational change of the old farm operations occurs.

At first blush, this appears to be a power and economic grab by the farm managers and local officials. To a degree, it is. Local and national government officials wanting to have a portion of the hard currency generated by cotton exports are trying to browbeat farmers to continue to grow cotton despite their new freedom to farm as they wish. Local *jumat* officials tell the farmers that they have to be commercially productive or, in accordance with the land tenure law, they will lose their lease rights. The local officials tell them that the only way that they will meet that commercially productive status is to grow cotton. Other bureaucratic methods include tax and land committee authorities telling farmers that if they do not grow cotton their lease rights will be seized if they do not have cash to pay various land taxes.

---

<sup>6</sup> Government resistance to greater farm privatization is due to the fact that the remaining farms are some of the best lands and these farms are still responsible for more than 70 percent of the country's raw cotton production, which is sold to the government at prices substantially lower than world market.

<sup>7</sup> It was reported that farmers continuing to work on these new farm arrangements are paid 15 *sonomi* per month for their work but are charged five *sonomi* per month rent on their small individual plot. The WB PIU account suggests that *dekhan* farms under their project are fully free to plant whatever they want and most of them have moved into fruit and vegetable production for the local market. Most accounts reflect the collective lease approach.

While government officials, primarily local, are trying to control, tax, or otherwise seek rent from farmers, more is involved, reflecting the extraordinary complexity of converting Soviet style agricultural production to a market system. Most farm workers not only do not have the agronomic or animal husbandry skills to grow crops or livestock, they do not have access to inputs for such production. Even if they had access, they do not have the funds or sufficient collateral to obtain loans to purchase the inputs. They do not have the market knowledge to know where to sell their produce or animal other than local markets that are flooded with products at harvest time. In short, they do not have the farm management capabilities to generate income from the land. Also, they do not have a good understanding of their legal rights to grow whatever crop they chose on the land free from government interference. The “new” farm arrangement gives them a poor subsistence security that is easier for them than pioneering through the various unknowns, potentially losing their land rights, and risking the ability to feed their family at even a subsistence level.

The land tenure law may need fine-tuning to correct potential abuses of government officials, but legislative changes alone will not solve the farmers’ plight. Farmers need technical and legal assistance to understand their legal rights and to know what the local government officials and farm managers can legally do. Until the farmers obtain the technical knowledge needed for growing crops, have available inputs that they can afford to purchase, and see or find an available market for their produce, they are not likely to push hard for change of the corrupt land tenure system. But these farmers are not idle in their quest. They are seeking agronomic knowledge, searching for credit and funding, and joining farmer associations to gain greater understanding of their new careers. It appears that they will test their knowledge on the household plots<sup>8</sup> and small farm plots until the results increase family income.

Obtaining production credit for crops will also continue to be very difficult until the laws of Tajikistan make clear that land lease rights can be mortgaged. In addition, the law must make clear that there is a clear mortgage mechanism enabling creditors to lend against these rights and foreclose on the lease rights and sell them to obtain loan repayment if the farmer defaults. Without this, commercial banks will refrain from financing most farmers, who will be left to obtain little bits of expensive financing from microfinance institutions or moneylenders willing to lend to farmers.

### Leasing Law

On April 23, 2003, the President of Tajikistan signed the Law on Leasing and amendments to the Civil Code relating to leasing of assets that superseded prior Civil Code renting relationships. This legislation will enable most companies to finance and obtain equipment more easily than under previous laws. Now the lessor has authority to repossess the leased asset pursuant to procedural regulations. For example, the new law defines leasing as an economic and property relationship in which the lessor under the direction of the lessee purchases an asset (primarily equipment) from a manufacturer or supplier for use by the lessee for commercial purposes in

---

<sup>8</sup> Prior to 1991, 75,000 hectares of state land were distributed to households for their own family growing needs. These plots were given in apparent perpetuity though land certificates were never issued.

exchange for rent to the lessor. The leased asset is specifically transferred to the lessee during the course of the lease, hence a financial lease.

Several elements of the Tajik leasing law follow international equipment leasing principles for financial leases and will positively foster investors and entrepreneurs to use this approach for obtaining equipment for their businesses:

- Leasing is not an activity requiring licensing dramatically reducing bureaucratic approvals.
- The leasing agreement must include all basic terms of the business transaction:
  - Description of the leased asset.
  - Delivery conditions.
  - Rights and responsibilities of the parties.
  - Lease payment, lease term, late payment charges, early lease termination, etc.
  - Conditions for transferring the leased asset to the lessee at the end of the term.
- Both lessor and lessee are creditors to the supplier.
- Long term leased assets, which are transferred to the lessee at the end of the term, are accounted on the balance sheet of the lessee.
- For tax purposes, the lessor is the owner of the equipment and the lease payments are treated as having principal and interest components, provided:
  - Leased asset is turned over, sold for a fixed or negotiated price to the lessee at the end of the term.
  - Leased term is more than 75 percent of the useful life of the asset.
  - Appraised value at end of the lease is less than 20 percent of initial market price.
  - Net present value of lease payments are greater than or equal to 90 percent of the asset market value at the beginning of the term.
  - Leased asset is sold to be leased and not used by any one other than the lessee.
- Leased assets do not include real estate or intellectual property (software, design, know-how, etc.).

VAT is not levied on financial services and therefore lease payments are not subject to VAT. This creates an anomaly in that the lessee must pay VAT on the leased asset but does not receive an offset from VAT that should be paid by the lessor on the principal portion of the leased payments. Another tax anomaly is VAT on imported goods and services. Firms importing production and technical equipment for manufacturing or services for its own account are not required to pay VAT on the import. This tax advantage is not available to leasing. Companies importing equipment for leasing must pay VAT of 20 percent immediately on import of the

equipment and before the lessee has even used it. These anomalies are likely to be reformed during experience with the leasing law, but this latter anomaly discriminates against leasing as a method for importing new equipment.

Regulations still need to be adopted detailing the procedures for lessors to repossess leased asset upon the default of lessees in making payments. Also, depreciation of a lease asset is not clear and needs clarification. An accelerated depreciation schedule would be appropriate as a method of spurring growth in leasing and capitalizing Tajik industry with new appropriate equipment and technology.

## Banking, Microfinance Institutions and Credit Unions

### 1. Banking

Banking in Tajikistan is fragile, and barely developed from its Soviet origins. For the most part, commercial banks in Tajikistan are privately owned and operated, though the government still maintains some small interests in a few privatized banks. Amonat Bank (former Sber Bank, the state-owned savings bank) remains to be privatized and operates as the government's fiscal agent. The government is reluctant to lose its cash flow financing facility to privatization. In addition, the National Bank of Tajikistan (NBT) continues to mediate government-directed credit, interfering in the NBT's independence as a central bank and undermining monetary policy.

Four of the 14 banks in Tajikistan (AgroInvest Bank, Amonat Bank, Orient Bank, and Tajiksoderotbank) own 85 percent of the banking assets, which are primarily financing the cotton sector, 94 percent of nonperforming loans, and 70 percent of the private deposits. In mid-2002, only five banks met the minimum capital requirements and two of the largest, AgroInvest Bank and Amonat Bank, were well below the minimum capital requirements.

The IMF characterizes the Tajik banks as comprised of large, Soviet style banks that have transformed into market-oriented commercial banks and a few very small and relatively well managed banks. Because of their history, the four major banks also hold a majority of the nonperforming loans in their portfolio. Though largely financed from private international funding and not local deposits, a major downturn in cotton could severely harm the Tajik banking system. AgroInvest Bank, a financing facility for the cotton industry with a loan portfolio of about 12 percent of the GDP, is especially concentrated. More than 90 percent of its assets are in loans, 90 percent of its loan portfolio is concentrated in loans to cotton producers, and a large portion of those loans are non-performing. Much of the cotton loans are considered off balance sheet due to an arrangement in which the bank receives loans from NBT that were funded by CSFB (see Note 1).

Attempts by IFIs to encourage and assist the bank to diversify and restructure its products and portfolio and mobilize deposits have had limited effect. Aggressive mobilization of deposits and remittances from migrant Tajik workers have only marginally improved its financial position and increased the risk to the Tajik banking system and the cost of its liquidation to the government. With such a high negative capital position, AgroInvest Bank, in a sound bank regulatory environment, would have been forcibly stripped of its nonperforming assets and merged with

another bank or simply liquidated. To allow this weakly capitalized bank with few performing assets to continue to operate outside strict supervisory control presents a major risk to the health of the banking system.

A number of small banks constituting about 15 percent of the country's banking assets are slowly developing a stronger presence in the banking community. Small banks have a growing share of nonperforming loans and loans to non-cotton sector enterprises. For the past four years, the small banks have been consistently more profitable than the four large banks. The small banks are still weakly capitalized, however, and have limited sources for additional capital. Outside of the cotton lending, the Tajik banking community does not have access to international capital to support lending operations.

The bank regulatory framework and the supervisory enforcement capability are still developing, particularly in operational oversight and enforcement. The NBT does not have an appropriate call report for obtaining important current operational data on the trends of each bank. Nor do the banks collect the type of data that would be on such report for their managements to make informed decisions. Many banks violate prudential requirements. Regulatory enforcement is limited because the bank supervisory staff does not have sufficient information regarding violations. Many banks operate under waivers from the NBT for violations of many prudential regulations. The NBT understands the problem, however, has made progress during the past year, and is continuing to move forward with USAID technical assistance to develop an effective off-site monitoring and supervisory system. Legislative reforms have also occurred, including reforming taxation of banks along international standards, limiting tax officials' access to customer account information, and prohibiting freezing of customer account funds without a court order. Other legislative changes permit businesses and individuals to have more than one bank account and eliminate the 30 percent tax on funds transfers from abroad.

Banking business ethics are challenged, as the NBT has allowed banks to be established or shareholders to buy significant shares of banks without questioning the source of the money. The close proximity of Tajikistan to illegal drug production makes these oversights troubling. Some banks have been permitted largely to finance the trade and business of certain companies or narrow economic sectors. At the moment the NBT does not know the extent of insider lending or the concentration of bank portfolio—major issues to the financial health of banks. Appropriate call reporting will correct this. Another weakness is the ability of one shareholder to hold more than 50 percent of the shares of a bank—a risky practice. Also, commercial banks can hire the NBT officers and employees who regulate them, and gain valuable information on its competitors. A hiatus of one to two years between central bank and commercial bank employment should be mandatory.

Foreign and local currency deposits increased in 2002, indicating growing confidence in the economy and the Tajik *sonomi*. Banks are paying interest on more types of deposits and real interest rates have been positive since 2001. Lending based on deposits, though, has not kept pace with depositary growth; prudential regulations require that 75 percent of deposits be invested in liquid assets. Funds transfer throughout the country is relatively easy and not very expensive—a valuable financial service to the entire public. This service started in a rocky

fashion with high transfer fees until banks realized that if they wanted the funds flow, they needed to have reasonable fees or customers would simply choose alternatives.

## 2. Microfinance Institutions

The weaknesses in the Tajik banking system may be partly due to lack of knowledge about alternative practices. Tajikistan has limited large corporate, commercial, or trading business to finance and too many banks to finance it. The banks have not penetrated the very active micro to very small business activity currently dominated by microfinance institutions (MFIs).<sup>9</sup> MFIs are wasting no time in mobilizing savings for their own funding and would greatly expand their deposits if the draft MFI law is enacted. MFIs appear to be ahead of the curve in development of community banking in deposits, lending, and development of branch networks.

There are several donor-supported MFIs operating in the north and south of Tajikistan that are very active in developing customers and loan portfolios. In most markets in which they operate, MFIs are the only lenders and have substantially more potential customers than they have funds. MFIs provide valuable training to traders, merchants, service providers, agricultural producers and micro entrepreneurs. MFIs appear to have regulatory dispensation to operate outside of the banking law, which requires all lending activities to be conducted by commercial banks.

The MFIs reviewed appear to be very active and effectively managing their organization, loan portfolio and savings products. Other than competition for donor funds to expand their loan portfolios, MFIs seem to operate in different markets with little competition between them. Without audits, it is difficult to assess the financial health or sustainability of these MFIs, but the high demand for their products and the healthy two to four percent monthly interest charges should enable any well-managed MFI to reach sustainability as soon as it can comfortably place sufficient loans to support their administration.

Several donors and the MFIs they support have participated in the development of a draft MFI law that has not yet moved from the government to the *Oily Maglis* for passage into law. Some have suggested that the delay is due to banker lobbying to prohibit MFIs from taking deposits.

## 3. Credit Unions

Tajik law does not now provide for credit unions<sup>10</sup>, but a project component of the World Bank (WB) Farm Privatization Support Project is the establishment of credit unions. Four credit unions are in the process of organization with the chartering and supporting documentation currently under review by the GOT. The NBT is permitting the WB-supported credit unions through a regulatory exception to the Tajik banking laws. The draft MFI law would include chartering of credit unions.

---

<sup>9</sup> EBRD has been providing lending facilities, some capital, and technical assistance totaling \$4 million to Orienbank and Tajiksoderotbank.

<sup>10</sup> Technically, there are already four credit unions or credit partnerships, but these are commercial banks that have been demoted due to their low capital and limited asset base. These “credit unions” do not appear interested in developing as a traditional credit union and without restructuring, these former banks are likely to fail.

## Associations

The Companies Law provides for simple and inexpensive registration of companies. Non-profit associations and NGOs restrict the abilities of members in their commercial activities even though the associations are not taxable at the association level.

Associations of *dekhan* farms appear to have had no difficulty registering their association largely because this association development was sponsored by the government and local officials. Many believe these associations have been an informational organ for communicating national and local government interest in cotton and other production.

### **B1c. Commitment of government to reform**

The GOT operates under the 2001-2005 medium-term agriculture policy strategy. A primary goal of that strategy is to increase the level of agricultural productivity to early 1990 levels. Also prominent in the strategy is the government determination to privatize all state or collective farms by the end of 2005. This goal is one of the conditions of the WB Farm Privatization Support Project, though the Minister of Agriculture insists that it was the government's goal all along. The Ministry is also working on a longer-term strategy to increase the level of productivity to that of other developed countries by 2010. Given that current productivity yields are 50 percent or less than 1990 targets, the Minister recognizes that meeting some of its benchmarks will be a major challenge.

The Ministry of Agriculture stated that the first government priority is for food security and thereafter to improving the quality, quantity, and markets for Tajik food products. The Minister believes the Tajik agricultural sector needs strong technical assistance in agronomic and farm management practices if it is to achieve its goals. Also, concentrated assistance in targeted areas would provide other regions with exemplary results to spur their adoption of the improved practices. Current donor programs are too uncoordinated, scattered, and poorly monitored to provide lessons in technical assistance to the Tajik population and businesses.

The Ministry of Agriculture is committed to improving the quality of agro-processing and the markets for processed food products. Too many Tajik harvests have lost a substantial quantity rotting in the fields and on trees. The Ministry wants to have internationally sponsored agro-processing workshops to provide Tajik food processors with the latest trends in the industry, particularly in containers, packaging and market presentation. Thereafter, further resources should be expensed on transportation, storage, and market development infrastructure. Only by focusing resources in an integrated manner from production to market, according to the Minister, will Tajikistan show farmers the way to produce higher value product for greater profitability. The government also believes that farmers would invest more in soil fertility and land improvement if they better understood the certainty of their long-term lease rights.

The government is also committed to Accession to the World Trade Organization (WTO) though it is in the very early stages. As of this report, the GOT has submitted a WTO application but not a Memorandum on the Foreign Trade Regime and no Working Group has been established for Tajikistan.

## B1d. Primary agriculture (Production)

### Overview

The World Bank Poverty Assessment locates Tajikistan at a very early stage of transition from the Soviet economic model, with much of the economy still controlled by the state and most farmland under a high degree of state influence. Agriculture remains one of the most important sectors of the Tajik economy; however, lack of access to sufficient agricultural inputs, markets and credit, the dilapidated irrigation infrastructure as well as machinery have significantly constrained agricultural growth.

Revenues of Tajikistan exports have fallen over the past few years. Cotton yields have declined to less than half of pre-independence yields years due to soil depletion, lack of appropriate crop rotation, inappropriate input use, and poor farm management. World cotton prices have also declined largely due to China's move into the cotton export market.

### Land reform

After independence, the GOT initiated a range of reforms intended to transform the agriculture sector into a competitive market-led economy. Land reform, breaking down the *kolkhozes* and *sovkhoses* is ongoing, allowing private farms—*dekhan* farms—to operate based on lifelong inheritable leases. However, land still remains state-owned. Farmers are given land-use rights, which can be passed on through inheritance, but are not tradable. These limitations restrict the evolution of commercial agriculture. Further steps are needed to broaden and deepen land-use rights.

The lack of clear procedures under the existing law on *dekhan* farms adopted in 1992 for land allocation to private farmers and for dispute settlement has resulted in the decisions of local authorities being viewed as arbitrary, sometimes involving unfair elements. The Parliament amended this law in 2002.

Collective farms are in the process of re-organization into lease farms, joint stock companies, *dekhan* farms and household plots. The latter two forms of land tenure are private and according to official sources account for nearly 50 percent of total agricultural land.

A *dekhan* farm is generally either a small to medium-size family farm (2-50 hectares), or a large “collective *dekhan* farm” or “*dekhan* association” (50 to 500 hectares). *Dekhan* farms are created with a lifelong inheritable *dekhan* lease. The process of obtaining *dekhan* land rights is described in the World Bank Poverty Assessment as “exclusive, complicated and expensive,” relying as it does on access to information, insider contacts and resources. Many of the new *dekhan* farmers are apparently former collective farm administrators and specialists, local government officials, businessmen, or relatives of people in these elite categories.

In lieu of unpaid wages, farms commonly “rent out” land to their workers on short-term informal leasing arrangements. These are sometimes organized on a sharecropping basis. The World Bank Poverty Assessment estimates that perhaps 20-25 percent of the 600,000 rural households have

been involved in small-scale informal leasing without written agreements. Inevitably the lack of security prevents investment and leaves farm workers vulnerable.

The FAO and other donor organizations consider *dekhan* farms to be a positive step toward a viable private agricultural sector. A number of households, often extended family members from the former collective farms, are given the right to inheritable land use. Individual shares have not been demarcated to encourage an economically viable size, economies of scale in production and marketing as well as efficient division of labor. Land entitlement policies and tax regimes are under review and the situation may change in the near future. It is argued that the land tenure policies and tax regimes have been a major factor in discouraging private investment in agriculture.

### Household Plots

Most of the rural population relies for its basic livelihood on self-production on household plots of land. According to the Tajikistan Living Standards Survey (TLSS), 92 percent of rural households have a household plot, providing 45 percent of total household consumption. Because of a complex form of integrated agriculture, land productivity is high. Vegetables are grown for market and for the household's own consumption, and crop residues from the plots partially sustain small and large livestock. According to the TLSS, conducted before two years of drought, over half of all households own cattle and 34 percent own chickens. When asked about survival strategies, participants put their household plot and livestock at the top of their lists, ahead of migration, trade, humanitarian assistance, wages and pensions.

Nearly all households in the rural areas have access to a small plot (0.08-0.2 ha) of land, usually attached to homes. Between 1996 and 1998, 75,000 hectares in small lots were distributed by Presidential decree to supplement existing household plots. The World Bank Poverty Assessment notes that the impact on the livelihoods of those who received such extensions seems to have been highly positive. According to the report, the experience of household and Presidential plot farming in Tajikistan suggests that 'small-scale, labor-intensive farming in transitional economies can be scale and resource appropriate, economically viable, employment generating and independent of subsidy. Some land has also been given on a long-term lease to households, while state farm workers are given a small plot to cultivate in return for labor on the state farms. In all cases, issues of land entitlement, insecurity, and access to farm machinery, inputs and markets have severely hampered efforts to increase agricultural production.

### Input supply

The FAO report indicates that the private sector input supply network is not developed and existing state institutions cannot meet the growing demand from the private farmers. In addition, commercial import and marketing of inputs is constrained due to deteriorating agricultural terms of trade. Agricultural inputs— fertilizers, agro-chemicals, machinery and fuel—by and large reflect international prices, while agricultural produce is heavily discriminated against due to the prohibitive tariff and non-tariff taxes in neighboring countries. Therefore, the use of fertilizers, agro-chemicals and improved seed varieties has continuously declined since independence.

## Marketing and processing

The domestic market is unintegrated, small, easily saturated, and can absorb an insignificant amount of the domestic produce, particularly fruits and vegetables. Access to foreign markets is limited and unprofitable due mainly to prohibitive tariff and non-tariff barriers in the neighboring countries. Transit tariffs in Uzbekistan and Kazakhstan are particularly high. Cotton marketing is predominantly in the hands of the state or the newly created joint venture Cotton Companies. In all cases transparency of prices, operation costs and margins is a major issue, and farmers in almost all cases are not aware of input and output prices.

## Farm equipment

Tajikistan's farm machinery continues to deteriorate, with serious consequences for crop production. With reduced tractor power and dilapidated tillage implements, seedbed preparation is often inadequate for the production of a good crop. During the Soviet era, cereals were drilled; now, with virtually all the country's seed-drills non-operational, cereals are broadcast, either by hand or by fertilizer-spreader, and then lightly incorporated into the soil by harrowing. This results in uneven crop stands, a wide variation in the depth of seeding, and a significant portion of seed left on the soil surface where it may be eaten by birds or dry out and fail to germinate. High seed rates (over 200 kg/ha) are used to compensate, at least in part, for these effects. Large areas of wheat, especially on the remaining *kolkhozes* and the bigger *dekhan*, are still harvested using combine harvesters, many of which are more than 30 years old and have benefited from only stop-gap servicing since the collapse of the Soviet Union. The results include heavy grain losses in the field as well as enhanced dissemination of weed seeds.

## Seed

Most cereal crops in Tajikistan (between 80 and 90 percent) are grown from seed retained from the previous harvest. The negative consequences of this practice, compounded with each crop generation, include a decline in genetic yield potential, low germination rates, a serious risk of passing on and exacerbating seed-borne diseases such as smut, and the likelihood of a build-up of weed seed unless effective seed-cleaning measures are taken. Even those farms and farmers who purchase cereal seed often find themselves faced with the same problems, since a significant amount of locally produced seed of very poor quality finds its way onto the open market. At present, the best cereal seed available in the country is either imported commercially or through an NGO such as CARE International or produced locally under the auspices of an NGO. German Agro-Action (GAA), which has seed-testing and cleaning facilities, is producing elite wheat seed. The National Seed Institute continues to concentrate most of its very limited resources on the production of cottonseed.

## Fertilizers

Use of fertilizer on cereal crops is considered by most local agricultural authorities to be, on average, between 10 and 15 percent of that recommended. This is due partly to poor availability, but mostly to cost, which is considered high relative to average rural income. Under-utilization of fertilizers certainly contributes to the country's low average cereal yields, but it is only one in a complex of limiting factors.

## Finance and credit

Aside from the special cotton production credit from international traders, financing to the agricultural sector is largely provided by MFIs and a few farmer associations. This is not surprising. MFIs are situated in smaller urban areas and some rural communities close to agricultural production. MFI loan sizes are sufficient to cover a modest amount of the inputs that farmers need—particularly for household plot fruits and vegetables—and the group lending, borrower training, and individual responsibility loans with limited collateral are appropriate to the value of borrower assets.

Most MFIs have not ventured into agricultural production lending but make loans to traders of food products in the local *zums*. The largest MFI, operated by the National Association of Women in Business (NAWB), reports total assets of \$1 million and growing. NAWB started as a women's business association with a strong corporate mission of helping its members grow their businesses. This attitude has flowed into its financing activities where it is trying to grow with its customers by developing larger loan products more suitable for Small and Medium-Scale Enterprises (SMEs).

MFI loans range from \$100 to \$5,000 with outstanding loans averaging around \$500 to \$1,000. MFI loan products in Tajikistan are fairly standard. Most have two solidarity group loan products without collateral and an individual loan with collateral for responsible customers graduating from group lending. Loan maturities range from six to 12 months depending upon the business activity and type of loan. Interest rates range from two to four percent per month. All MFIs have penalties for late payments that generally apply after the payment is three days late.

All MFI interviewed reported several hundred more applications from creditworthy borrowers than the MFI had available resources to fund. Borrowers are waiting for additional funds and outstanding borrowers are demonstrating strong repayment practices. Repayment rates range from 96 to 100 percent. With few lending sources and high borrower demand, this repayment experience is not surprising.

## Leasing

Leasing services have just begun in Tajikistan with a new Law on Leasing and appropriate amendments to the Civil Code signed by the President of Tajikistan in late April, 2003. According to the IFC, leasing companies have yet to be established to take advantage of the new law although one Tajik bank has entered into two leasing transactions to test the law's efficacy. The lessor's strong control of the underlying equipment is likely to make leasing a very popular approach for importing the new processing and packaging equipment needed by the food industry to develop a fruit and vegetable industry.

## Tajikistan Cotton Grading Standards

In 2000, Peter Wakefield of Wakefield & Company, world-renowned cotton grading and assessment firm, traveled throughout Tajikistan assessing cotton production and quality. He concluded that:

- Tajik cotton was superior to other cotton grown in the region, Tajik farmers were not receiving the true value for their cotton, and Tajik cotton was worthy of establishing a separate cotton standard.
- A trading standard in Liverpool, United Kingdom could be established for trading Tajik cotton under Liverpool Tajik 1 and Liverpool Tajik 2, provided that:
  - Universal Tajik specifications were established for cotton to meet these standards
  - An international grading and standards firm was established in Tajikistan to grade and test all cotton to provide each bale with the appropriate standards using the HVI testing system.

As a result of the study, the International Finance Corporation (IFC) offered to fund development of international standards for Tajik cotton, provided the standard was based on an international grading standard system, such as the United States or Australian system. However, the Tajik government declined to use the international standard system, preferring a Tajik-specific standard. The IFC withdrew its financial support. The Asian Development Bank (ADB) is circulating terms of reference for a feasibility study on the relative merits of Tajikistan adopting a Tajik-specific standard or an international standard for Tajik cotton. No decision has been made on additional ADB support based on the outcome of the study.

### **B1e. Agribusiness (food processing)**

Fruit and vegetable processing, cotton ginning, and oil seed crushing are historically the major food and fiber processing industries in north and south Tajikistan. Dairy and meat processing plants are active, but represent a much lesser degree of importance. The vast majority of these formerly state-owned plants are severely under-capitalized, poorly managed, and carry considerable debt. However, many of the smaller, privately owned firms are finding ways to cope with a very young market-oriented environment.

Critical issues for the agro-processing industry include:

- Shortage of working capital
- Sourcing of quality and quantity of raw materials
- Appropriate packaging and labeling
- Limited operational management capacity
- Appropriate processing technology
- Limited marketing capabilities and knowledge
- Few established market linkages.

Many of the issues that constrain agro-processor development illustrate the integrated nature of the value chain and the dependence on up- and downstream organizations to succeed. The day-to-day challenges of agro-industry development in Tajikistan are numerous and complex, but some development is still taking place. Identifying key entrepreneurs to serve as champions of these industries will be an important future development.

## **B1f. Water resource management**

### **Background**

Tajikistan's economy depends on irrigated agriculture, which has been practiced since ancient times. Massive irrigation systems built during the Soviet era are now rapidly deteriorating due to deferred maintenance in the late 80s and poor management during the civil war. Cotton's profitability in the recent past has been reduced in part because of low productivity resulting from dysfunctional irrigation and drainage systems.

Many rural water supply systems are defunct and an estimated 50 percent of the rural population has no clean potable water, depending on surface water for their domestic needs and risking infection. Less than two percent of households are connected to sewerage systems.

### **Water Legislation**

The Water Code adopted in 2000 provides a basis for the formation of Water Users Associations (WUAs) that will be responsible for operating and maintenance (O&M) of the tertiary systems and contribute to the cost of maintaining the secondary and primary systems through water charges payable to the local water entities. However, there is no specific law providing the details on establishment, development, by-laws, model charter, registration, etc. The entire process calls for guidance by the Ministry of Land Reclamation and Water Resources (MLRWR) and a gradual transformation of the relationship between the WUAs and water management entities.

The MLRWR could use assistance in reviewing its institutional capacity and structure to meet the impending requirements of the legislation and provide the necessary support to the WUAs for understanding these requirements. For this purpose, training and retraining of the existing specialists and regional training centers could be established.

### **Water Management and Irrigation Issues**

According to the agreement among the countries of the Aral Sea basin, enough water is allocated to serve Tajikistan's irrigation systems. However, because of poor function and management, the lands suffer from relative water scarcity. Improving the performance of irrigated agriculture requires rehabilitating irrigation and drainage systems and improving water management. The current cultivated area (irrigated and rainfed) is around 720,000 ha, which is a reduction of about 17 percent from the past decade. Because 90 percent of Tajikistan's arable area is irrigated, issues relating to irrigation have a significant impact on agriculture and on the economy as a whole. The need for better qualified cadre who would lead the work in the sector toward improvements in water use and planning policies is evident.

Some of the irrigation systems used today were constructed in Soviet times; for example, the Vakhsh system, constructed in 1931-33 for irrigation of cotton was recognized at the time as a masterpiece of engineering. The land is irrigated through a complex system of 5,900 km of off-farm canals, 450 pumping stations (irrigating of 320,000 ha), over 26 km of irrigation tunnels,

over 2,000 boreholes, and many water control structures. Most of the large and small infrastructure is in dire need of repair or renovation. It is estimated that more than 50 percent of the irrigation water is lost before it gets to the field.

The agricultural lands need functional drainage, especially on the boundary with Kyrgyzstan, because when the Kyrgyz lands are irrigated, the steep groundwater gradient causes accumulation of water downstream, with an upward rise of the groundwater on the lands in Tajikistan. The neglected maintenance of drains and collectors has caused higher groundwater levels, water logging, salinization, lower yields, and loss of productivity. Most of the 340,000 ha under the drainage network requires restoration.

About 40 percent of the irrigated area in the country and about 75 percent in the north requires water to be pumped. Irrigation is practiced at elevations up to 2,500 m, requiring high lifts, sometimes in five stages with total dynamic lift of about 350 m. Usually the lifts are arranged in stages as a cascade of pumping stations. Most of the pumps have not been maintained and operate on 60 percent of capacity, with a corresponding decline in irrigation volumes. Electricity is relatively cheap but its supply is not without interruptions.

#### Water Pricing Policy

The rehabilitation of irrigation and drainage systems is inextricably linked to the issue of cost recovery and the maintenance of such relatively expensive systems. Payment for irrigation water delivery was introduced in 1996 and efforts are being made to fully recover the O&M costs of irrigation. The tariff fees have been recently doubled and currently one tariff is being applied across the country (0.6 *sonomi*/ m<sup>3</sup>). Collection rates are approximately at 40 percent of billed amounts, but even if the charges were fully introduced and collected, they would cover only about 10 percent of maintenance costs, excluding energy costs.

The currently applied water charges do not differentiate between irrigation by gravity and pumped irrigation systems. The changes to the structure of irrigation water charges is presently under consideration, but the ministry officials have expressed a desire for TA to rationalize and reflect differences in system costs and devise a mechanism for an economy-based fee. The government is committed to gradually increasing recovery rates of the water delivery cost over 10 years and to provide funds to make up the shortfall during the transition period.

#### Government plans

Tajikistan has considerable water resources that seem under-utilized (average of 60 km<sup>3</sup> annually), with only one-fifth of the flow generated on its territory currently used. The president announced the year 2003 the International Year of Freshwater and stressed the need to save the Aral Sea for the people in central Asia. The MLRWR's water use plan is to:

- Rehabilitate irrigation and drainage systems and assure mechanisms for their sustainable operation.
- Establish a system for O&M that would be financially self-sustaining.
- Adopt measures for environmental protection as they relate to water.

The government plans to increase the irrigated area to 1,060,000 ha in 2010, and to 1,200,000 in 2025 in two river catchment areas—60 percent in the AmuDarya, and rest in the Zeravshan catchment. It is envisaged that the annual water system use will increase from about 14 km<sup>3</sup> to 15.5 in 2010 and 18.1 km<sup>3</sup> in 2025. The government plan promotes incentives to water conservation, more effective on-farm methods, modernization of the delivery and irrigation systems, and establishment of WUAs.

The plan also suggests that hydropower will become increasingly important and sees interstate cooperation as key to sound management of water within the Aral Sea Basin.

The MLRWR appreciates the help provided by the international donor and finance community and is very interested in channeling the foreign investments into rehabilitation of the irrigation and drainage systems, rural potable systems, prevention of water erosion, landslides, local flooding, and preservation of mountain environment.

#### Projects by Donors and International Finance Organizations

Given the circumstances in Tajikistan since 1994, most assistance has been relatively quick for priority reconstruction and rehabilitation, emergencies, and structural adjustment. Appreciation of USAID funds for rehabilitation of pump station in southern Tajikistan and associated activities under the existing water project is valued highly as the impact is felt on 20,000 to 25,000 ha. It would be important to consider another infrastructure improvement like that because immediate benefits by the users can be derived.

The World Bank had approved as a first project its Farm Privatization Support Project in 1999. This project is helping to shape the farm reorganization programs of 10 former state farms and to formulate policies and procedures that could be applied to the country as a whole. In 2000, the World Bank approved the Rural Infrastructure Rehabilitation Project, which will be implemented in the same locations as the Farm Privatization Support Project because the World Bank found that defective irrigation facilities are a significant constraint to farm reorganization.

Other significant funding sources are the Aga Khan Foundation, European Union, United Nations Development Program (UNDP) and World Food Program. ADB has approved two emergency loans relating to agriculture. ADB's Emergency Restoration of Yavan Water Conveyance System Project is ongoing emergency assistance executed by MWRLR. The ADB is preparing a new project with the Government rural development strategy to (i) continue the farm reorganization program, (ii) improve the efficiency of irrigation water use, (iii) develop a rural credit system, (iv) rehabilitate key irrigation facilities, and (v) implement a poverty reduction program with a substantial agriculture sector component.

The ADB program also assists *dekhan* farms, as many newly-organized *dekhan* farms have limited farming knowledge and would benefit from a program of demonstrations designed to illustrate the technologies that could dramatically increase their productivity. Farmers using relatively expensive irrigation water need to learn how to (i) improve crop yields, (ii) intensify their crop rotations, and (iii) diversify their cropping to achieve higher revenues. The proposed interventions are being pilot-tested under the ongoing Tajikistan Rural Poverty Reduction Project

financed by Japan Fund for Poverty Reduction. The experience gained will be reviewed and evaluated before large-scale replication under the proposed project.

The proposed project area comprises three major irrigation systems; (i) Khojabakirgan irrigation system in Sughd region, (ii) Vakhsh irrigation system in the Kurgan-Tyube area of Khatlon region, and (iii) Kyzylsu-Yakhsu irrigation system in Kulyab area of Khatlon region. The Project will finance rehabilitation of key infrastructure—pumps, pipelines, cross regulators, canals, and civil works— so that irrigation and drainage facilities of three systems covering about 85,000 ha can function again.

### Water Users Associations

The Tajik Water law allows for establishment of WUAs, however, the understanding of what a WUAs is and how it can function on behalf of farmers is still missing and more work needs to be done with mobilizing the farmers. Under the World Bank Farm Privatization Project 10 WUAs are being established on the basis of the boundaries of 10 former *kolkhozes*, and have no funds to operate. (The second WB project, “Rehabilitation,” also has a WUA component, but the entire staff of that project was out of town, so no precise information on the progress and problems was obtained.)

The ADB-planned project also plans to provide for capacity building so MWRLR can meet the demands of its changed role as service provider, and organize and train an estimated 30 WUAs. The Project will formulate a comprehensive long-term program for development and support of WUAs, including (i) identification of budgetary allocations needed for WUA support units at the ministerial, regional, and district levels; and (ii) determination of an overall training program for their staff. The Project will also provide O&M, communications, and office equipment; and irrigation management software.

To empower the beneficiaries, particularly the poorer factions, and facilitate sustained project benefits, the project will support promotion, formation, and training of WUAs in the project area. Priority will be given to parts of the systems that have been privatized and where groups of farmers depend on a common source of water. The project will ensure that (i) a dialogue is established between the target communities and sector agencies concerned organization of WUAs, (ii) WUAs are organized in a participatory process, and (iii) the level and role of female participation is promoted in formulation, organization, and management of WUAs. Initially, the WUAs would take over management of the tertiary systems. As they gain experience, responsibility of the secondary system will also be delegated to them and by project completion, they are expected to handle O&M of all irrigation and drainage facilities of the project. The WUAs will be supported in (i) governance and administration, (ii) financial management, (iii) collection of water fees, and (iv) integrated water management.

Another project tackling the WUA establishment is funded by the Swiss Development Corporation, and includes a small portion of the Tajik part of the Fergana Valley, on Gula-Kandoz canal. That project has successfully established a democratically formed WUA, after a few months of mobilization of farmers using trained organizers, and plans to build a basis for integrated water resources management by establishing canal management boards with

participation of stakeholders. Several workshops with major stakeholders were held during this time to discuss the project objectives and process toward the IWRM.

### Technical and Institutional Needs

Problems of water resource management in Tajikistan were highlighted at the World Water Assessment forum in November 2002, primarily the need to rehabilitate existing infrastructure and capacity, better water governance, and standardization of water policies to improve the water-based socioeconomic status.

Clearly, the technical improvements and restoration of the water infrastructure goes hand in hand with the improvement of water resources institutions, such as water departments and WUAs. WB and ADB projects will not be able to rehabilitate all critical infrastructure and provide all the necessary types of training. (There are also access village roads, which could be improved by the WUAs themselves if they had the necessary equipment.)

From the technical aspect, important elements include repair of main canal headworks, pipelines, spillway structures, pump stations, and provision of spare parts (on the USAID SIWP they came from Russia). Smaller infrastructure improvements include cross regulator gates, canal lining, and control/ measuring structures. Drainage systems need de-silting, mechanical cleaning and weed removal, as well as rehabilitation of drainage wells, collectors, and crossings.

Also needed are adequate measuring devices for farmers, small equipment and radio communication system for the WUAs, and small motorcycles so that WUA staff can effectively operate and manage the systems, and account for the volume and requested water charges.

Capacity-building of WUAs staff and members should include not only explanation of their duties, but also their rights and legal power, as well as teaching on-farm methods and technology for water savings (traditionally, the Soviet norms and methods seem 'overdesigned') following international experiences and methods. It would also be important for the WUAs to receive financial help for renting an office, radio/communication equipment, furnishings, and start-up activities.

Tajikistan very much depends on water draining into the Aral Sea. Focusing on the importance of water availability and water sharing, and continued degradation both in terms of water quantity and quality, it is clear that disparity in income has further exacerbated the safe management of resources. These disparities in the availability of water have resulted in various kinds of stress within, between and among the countries.

TA programs for mediation, capacity building of senior staff of water institutions in the process of reform, preparation of cadre capable of designing water strategy, allocation and pricing policies along international norms, and preparation of all levels of water professionals for database development, informatics, and communication are recommended.

This would help to assure the sustainability of the investments, so that the country can undertake their own water resource assessments and actions to reduce poverty and enhance social and economic development. Such a program could be assisted by establishment of strategically

located training centers and equipped with modern teaching instruments, so that water and agronomic subjects could be taught to the future generation.

### **B1g. Agricultural education and research**

#### Education

The issue of quality and access to education in general and specifically agricultural education is not very encouraging. Damaged infrastructure and a sharp decline in public spending have dramatically lowered school attendance. Education quality is poor, with outdated teaching materials and methods, and teachers are leaving the system for economic reasons. Economic necessity also keeps many children out of primary school, with informal fee payments for basic education often proving an insurmountable barrier to children in poor households. Declining quality and access is also reducing attendance beyond primary schooling. Education is highly regarded by the population, but the government, together with donors, is struggling to keep the system from deteriorating further.

#### Research

A recent World Bank report noted strong agricultural research capabilities at the Agricultural University and the Horticultural Institute. In particular the report found:

- The institute possesses 5,000 lines of grain material for preparation of quality wheat seeds and a high volume of vine cuttings for varieties suitable to the entire region.
- University and institute academics need some additional incentives to be able to disseminate their knowledge to local producers.
- FAO prepared a lot of ground work in looking at adaptive research and extension as a component.

The report concluded that:

- A small pay component mechanism could re-institute knowledge use and transfer it to the agricultural sector before the knowledge dissipates.
- An organization of university and institute consultants through an NGO may be one solution.

### **B1h. Summary of key issues**

Agricultural production issues:

- Agronomic practices and farm management
- Land ownership and use rights
- Access to inputs and appropriate technology
- Access to finance
- Membership organizations
- Market linkages

Water management issues:

- Incomplete legal and regulatory framework

- Need for targeted water user association (WUAs) development
- Capacity of water managers (state and WUAs)
- Pricing policy and cost recovery
- Functional infrastructure and distribution technology
- On-farm water measuring devices

Agro-processing issues:

- Business and resource management
- Access to quantity and quality raw materials
- Access to supplies and equipment
- Access to finance
- Membership organizations
- Market linkages

Allied industry issues:

- Input supplies
  - Private ownership
  - Increased services
- Water delivery (quantity and timeliness)
- Mechanization units
  - Private ownership
  - Appropriate technology
  - Leasing options
- Legal and tax advice

Financial services issues:

- Trust between businesses and creditors
- Borrower financial management creditors
- Lender understanding of producer and agro-industries
- Limited borrower assets
- Government policies

Market and market intermediary issues:

- Insufficient market intelligence
- Trade linkages
- Transportation, security, and storage
- Market infrastructure
- Local assemblers – working capital and transport
- Wholesalers – regular supply volume and quality
- Retailers – packaging, labeling, price

Enabling environment issues:

- Legal rights awareness: land, water, and commercial
- Conflict mediation and arbitration
- Tax reform

- Commercial legal regime
- Cross border trade barriers
- Policy formation mechanisms.

## **B2. Examination of Donor Programs**

Tajikistan has had relatively few donor programs during the past several years and few donors have in-country representatives due to security concerns. Multilateral donors and financial institutions—ADB, EBRD, IFC, UNDP, and the WB—have a presence and ongoing programs with the most active bilateral programs limited to USAID, the Swiss Government, and the Aga Kahn Fund for Economic Development. Due to the civil war and other regional conflict most donor activities until relatively recently has been primarily humanitarian in nature. Many NGOs and donor projects are besieged with requests for information and training on seed and plant varieties, agronomic techniques, optimal irrigation practices, farm management, and agricultural product marketing. Few are providing direct technical assistance in agronomic techniques, seed varieties, and farm management practices. The IFC Farm Ownership Management project and the Mercy Corps agricultural technical assistance supported through USDA commodity monetizations are exceptions.

### **B2a. USAID/CAR projects**

#### Overview

These brief program summaries are not intended to be exhaustive but reflect USAID program activities of organizations as those programs relate to agriculture and water. Given the fact that agriculture is such a dominant part of the economy and rural employment and water is so tied to healthy living as well as agricultural production, most donor projects in Tajikistan have been touched in some way by these sectors.

During the past year, USAID has supported three microfinance programs that are developing quickly and providing cash flow financing to many Khujand merchants of consumer goods and food products. These programs operate based on the memoranda of understanding between the US government and GOT and are not otherwise legal under Tajik law, which requires that all loans be made through commercial banks. The US government provided technical legal assistance through ABA CEELI attorney Chris Shields, who worked with the government to prepare a microfinance law. This draft law would register all microfinance institutions with the NBT and allow them to operate in Tajikistan in accordance with the law provided the institutions meet the minimum operational requirements. The GOT has not yet enacted the draft law. All donor projects worked closely with the ABA CEELI legislation drafting to develop a legal framework that was acceptable to each MFI program.

---

#### Pragma – Khujand and Dushanbe, Tajikistan

Interviews with Pragma staff in Khujand and Dushanbe included issues related to activities implemented by the Enterprise Development Project and Trade and Investment Project. The following notes are related to their views on the agricultural sector.

- Pragma’s main counterpart is the Association of Entrepreneurs, comprised of 600 members, many involved with agriculture and agribusiness.
- Enterprise development issues include:
  - Most businesses are de-capitalized
  - Managers focus on production and not profitability or efficiency
  - Need to change management mindset toward market and clients
  - Access to capital is severely limited (some micro-credit is available)
  - Working capital is not available
  - Processors are not usually paid until products are sold
  - Limited exports through old linkages in Russia
  - Tajik knowledge capital is migrating to Russia in search of work.
- The Tajik Pragma team feels a need for long-term agribusiness expertise to help focus their assistance program. They see the value the agribusiness advisor in Fergana is providing and feel such expertise on a full time basis would be beneficial.
- Pragma uses field liaisons volunteers on agricultural production and processing issues. These short-term technical volunteers provide a useful service; however, greater impact could be achieved if more field time could be arranged
- Transportation is an important issue for Tajik food producers and processors. Transportation costs and the associated “security” service charges undermine the potential for increased regional exports.

Pragma recommends expanding their agricultural oriented activities in the Khatlon Oblast where there is a large international donor commitment to development. Targeted agro-processing industries could include cotton ginneries, fruit and vegetable processors, edible oils, tanneries, and dairy processors. Many of these processors are small scale and require the types of technical assistance offered by EDP.

- A recent Pragma report on Khatlon indicates that 35 percent of the Tajik population live and work in this region, and their primary business is related to agriculture production and processing. Numerous and diverse food processors, albeit small in size, constitute an important resource base for regional economic development.
- There is a recognized need to target assistance to all elements of the value chain and develop a more integrated approach with other donors..

---

### Mercy Corps—Community Development

As part of its CAIP and PCI community development programs, Mercy Corps activity focuses on communities taking responsibility for their water and irrigation use and system. Mercy Corps provides some system rehabilitation and repair, pump maintenance and replacement or pipeline

bridges as necessary for good operation of the system. These activities take place after the community has developed the appropriate administrative bodies with defined authorities and responsibilities for community maintenance and management.

In one particular case, Mercy Corps rehabilitated a part of the water canals and irrigation system for seven villages near the city of Isfara in the Fergana Valley. Mercy Corps mobilized the villages to establish WUAs to maintain and administer the rehabilitated systems. After Mercy Corps determined that the village had developed a functional WUA, it had the canals rehabilitated and installed water meters to enable the community to measure the amount of water used. The WUAs established charges of one *sonomi* per water unit used for funding maintenance of the rehabilitated system. Since development of the project, the local governmental water authority has taken interest in taking over management of the system.

Two microfinance programs are being administered under Mercy Corps through local NGOs. In 2002, Mercy Corps provided \$100,000 in loan capital to the Development Fund and \$70,000 to the National Association of Business Women (NABW).

---

#### National Association of Business Women

The NAWB microfinance program has quickly grown into the largest Tajik microfinance program with \$1 million in USAID support and more than \$250,000 in loan capital. The program has been operating for one year has already placed more than \$150,000 in loan funds. Interest rates range from 41 percent to 47 percent or two to four percent per month depending upon loan size and terms. The loan repayment rate has been 99 percent on average. Business sectors are largely consumer and food product trading and various types of service businesses able to generate a profit in a short time span.

NAWB provides microcredit loans up to \$5,000 to women-owned businesses in trading and retailing food products and consumer goods in urban areas of Khujand and neighboring towns and villages. NAWB provides group training before loans are disbursed and works with the women to enable their loan size to grow with their business. Women entrepreneurs also receive marketing and other business training, marketing and product information, and access to various services from the association.

---

#### Care – Dushanbe, Tajikistan

Care is helping families increase household food security through an integrated program that provides technical assistance, cash, and in-kind resources (including seed, fertilizer, and pesticides) and credit to community-based groups. Care has helped develop 126 small farmers' associations, 321 women's groups, and five water user associations and also works with community groups to refurbish irrigation systems and conduct trainings in business planning and money management. Some key concerns:

- Care managers underlined what they perceive as growing stress between cotton and food production sub-sectors, which leaves many vulnerable families food insecure.
- Cotton is viewed as a sharecrop monopoly that indentures small-holders and impedes the privatization process.
- The cotton system was described to be parallel to the rule of law and market oriented practices.
- The cotton system is supported by cultural and historical (Soviet system) practices that remain unreformed.
- Understanding the current mindset of many farmers is still very much oriented toward the old Soviet mindset where rural people generally wait to be instructed what to do.
- Water user associations are complicated by involvement with local officials and will not necessarily succeed; maintenance of the irrigation has not happened to any great extent and cost recovery for water use is almost non-existent
- Food processing is an area that has some potential, but the financial resources to develop these industries is not available. The domestic market seems to hold some possibilities for expansion given the level of food imports into the urban areas. To compete in domestic markets should improve quality and packaging
- Community-based (CBOs) micro-credit program has been running for eight years with funding from USAID and the ADB. CBOs of 20 to 30 people utilize revolving credit lines of \$2 -3,000 per group.
- Afghanistan will be an important market for food products in the near future.
- There is a real need for agricultural extension services, in that basic agronomic practices are not known by many of the new private farmers. A trickle down approach to this issue will not work; long-term hand holding is required.
- USAID should be engaged at the highest levels of government on policy issues. Collaboration with the World Bank, EU, and ADB would give any policy reform initiative some weight.
- Care would like to group about 600 CBOs together into a federation that could develop and manage a service advisory center.
- There is a need for credit unions in Tajikistan. Care is hoping that the legislation for credit unions will pass this year.

## ACDI/VOCA – Khujand, Tajikistan

ACDI/VOCA is administering a microfinance program through a locally established NGO, Micro-entrepreneurs Development Support Center (MDSC), as part of the Fergana Valley Regional Micro-lending Program under the Stability and Food Security Program.

### Key points:

- Target markets include Khujand, Chkalovsk, Kayrokkum, B.Gafurov, J. Rasulov and Nau Districts.
- Business owners must have been operational for at least six months.
- Targeted business segments include trade, production, services, or agribusiness.
- Borrowers do not have loans from another microlending program.
- All loans are solidarity group loans of four to eight businesses (though each group member receives a loan) with no collateral requirements.
- Loans range from 80 to 200 *sonomi* (about \$25 to \$60 but not dollar denominated or indexed) at 4 percent interest per month (charged on a declining balance) for one to three months term. All loans have a .5 percent administration fee and loan payments are due every 15 days.
- Loan amounts are increased based on performance of previous loans.
- Seventy-five percent of all borrowers are women, receiving 69 percent of the funds lent.
- The average initial loan size has been 195 *sonomi* or \$62 for 2.3 months.
- The average subsequent loan is 692 *sonomi* or \$220 for 3.3 months.
- Currently only two loans are past due.
- 85 percent of loans are for trading; 8 percent for agribusiness, 4 percent for services; and 3 percent for production.
- MDSC has 88 active loan officers managing an average loan portfolio of 31,627 *sonomi* or \$10,000 each.
- Current loans are almost evenly split between Tajik and Uzbek borrowers.

---

ARD/Checchi – Dushanbe, Tajikistan  
Commercial Law

The ARD/Checchi Commercial Law project has actively worked on numerous laws and legislative efforts in Tajikistan, including:

- Bankruptcy
- Civil Code, Titles I and II
- Civil Procedure
- Economic Procedure Code
- Joint Stock Company Law.

ARD/Checchi has also conducted numerous training sessions for judges, government officials and legal practitioners, including:

- Banking law and practice
- Bankruptcy code and practice
- Civil Procedure
- Criminal law and procedure.

ARD/Checchi developed a judicial examination for aspiring judges. The government requires all judicial candidates to pass this examination prior to being considered eligible for the bench. Previously, many judges purchased their positions without necessarily having the requisite competence. While the corruption may not be eliminated, at least the judges selected will have greater competence for their positions.

ARD/Checchi has compiled the most comprehensive legal database available in Tajikistan and is the best resource for the current state of the laws of Tajikistan.

Other USAID contractors or donor projects are working on the following legislation:

- Microfinance Law (WB)
- Pledge Law (WB)
- Tax (Bearing Point)
- Law on Licensing.

---

Bearing Point – Dushanbe, Tajikistan  
Bank Supervision

Bearing Point, among other things, is developing an off-site monitoring and examination program for the NBT as well as advising the NBT on a variety of bank prudential regulations, including:

- Scrutiny of bank shareholders and sources of their investment prior to approval of bank ownership
- Reduction in the percentage of a bank's capital that a single individual shareholder can own
- Limitations on NBT staff from working with commercial banks prior to a reasonable period of separation from the industry
- Advising government on streamlining of licensing procedures for banks and bank customers
- Enforcement of limitations on insider lending
- Reduced granting of waivers to banks for noncompliance with prudential regulations
- Development of Call Report with current information on bank balance sheet and income statement and changes in condition from previous period
- Financial statement prepared in accordance with international accounting standards.

Tajik commercial bankers have received a variety of training opportunities provided by donors and international financial institutions, but need more. Staffing capacity is sufficient but the bank's decision-making process is not. Bank management should have daily balance sheet and income statements to maintain strong control of the bank's current activities and cash positions, but few bank managers have this information even on a monthly basis.

---

#### USDA - Commodity Monetization

Since FY 2000, USDA has authorized monetization of vegetable oil and wheat in Tajikistan both to make more food available in the poor regions of Tajikistan and to fund several humanitarian and technical assistance programs. A consortium of U.S. humanitarian organizations has established the Consortium Monetization—CARE, Mercy Corps, Counterpart, Save the Children US—to facilitate, coordinate, leverage, and avoid duplicative humanitarian programs.

During FY 2003 USDA approved \$12.5 million in monetization for Tajikistan for the consortium to provide programs in agriculture, agricultural and microcredit, health and nutrition and water and sanitation. The consortium had few problems in completing the monetization and worked through the Tedjara Bank. The programs operate with headquarters in Khujand and branches in Dushanbe and Shartuse serving the Fergana Valley in the north, the Rascht Valley in the south and Shaartuz in the south.

- Agricultural techniques
- Production to market assessments and training
- Agricultural production assistance
- Combination with Winrock Farmer to Farmer programs.

Mercy Corps is providing short-term expertise to its agricultural monetization program with FTF volunteers fielded by Winrock International. One to two agricultural and food industry experts are being fielded each month in vegetation and crop prospect assessments, land quality assessments, improving animal husbandry and livestock production, bakeries and food service, and improved farm irrigation techniques.

## **B2b. World Bank projects**

### Farm Privatization Support Project

The WB has two primary projects in Tajikistan. The Farm Privatization Support Project worked with 10 former *kolkholzes* totaling about 14,000 hectares to transform them into 4541 private farms of three to five hectares each. The WB is preparing an Agriculture Community and Watershed Management Project for Bank approval by the end of the year. The Farm Privatization Project has three components:

- Equal and fair distribution of land
- Reconstruction and rehabilitation of irrigation systems
- Organization of credit unions (finance component).

Although the Farm Privatization Project was to end at the end of 2003, it has been extended another two years to coincide with the government's schedule to complete the privatization of all *sovholzes* and *kolkholzes* by the end of 2005. The WB believes that the project has proceeded very well with the administrative and institutional process of land privatization, and the government has exceeded the Bank's expectation in privatizing much more land during the early phase than initially targeted. The completion of the entire process has slowed, but the WB is optimistic that the government will complete the land privatization process as scheduled.

### Land rights distribution

The WB PIU worked with the farmers and the government to facilitate the privatization of each of the 10 pilot farms, helping farmers to gain certificates to their long term land lease rights. Eight *dekhan* farms received \$300 per hectare grants (maximum \$600) to enable the beginning of farming operations and the process is continuing with the other two pilots. The WB PIU also conducted seminars on their rights through roundtable discussions. All farmers were made to understand that their land certificate gave them long term lease rights as well as the ability to mortgage their rights for loans. Lending against land lease rights has not yet begun, but it is expected to occur as the finance component is developed. Additional information campaigns appeared in newspapers, radio and television to make sure that farmers understood the privatization process, the WB project support including farm starter grants, and their land lease rights.

Two issues remaining to be resolved in the farm privatizations are land taxes on the newly privatized *dekhan* farms and the outstanding debts of the former *kolkhozes*. The outstanding debts have been transferred to the Ministry of Finance in a frozen account. It is not known how these debts will be resolved but the thinking is that they cannot be passed onto the new farmers,

who are struggling to become operational and profitable. The tax issue is more complicated due to the involvement of the Ministry of Finance and tax authorities and the *Oily Maglis* (Parliament). Currently, farmers have to pay 16 to 17 taxes to different taxing authorities, which disrupts their work and interferes in their farm cash management. Consolidation into one land tax paid through the local *jumat* to the state tax committee would simplify the process and dramatically reduce administrative expense.

Of the former farms, other infrastructure and assets were devolved to both government and private entities. Roads were conveyed to the Ministry of Transport along with the responsibility for repair and maintenance. Hospitals were transferred to the Ministry of Health; schools to the Ministry of Education. Farm machinery parks were distributed to the farmers based on their contribution to the farm.

### Rehabilitation of irrigation systems

The WB PIU worked with the hydrological unit of the former farms to develop WUAs for the long term responsibility and maintenance of the irrigation system of the former farms. Eight such WUAs have been created. Farmers are required to develop the WUAs themselves with elected representatives to serve on the board of directors. No farmer was required to join but any farmer not joining ran the risk of not receiving water or having to pay higher access fees to the association than non-members to receive water. The WB PIU assists the farmers in establishing their charters, rules of operation and registration of the associations. The WB PIU also provided each WUA with technical assistance, vehicles, appropriate equipment for excavation and irrigation system maintenance, metering systems, and payment of WUA administrative expenses for a period until user fees were sufficient to cover their salary costs.

WUAs only cover irrigation systems for agricultural production. The village household plots also pay for water for their household plots but they pay the fees to the local *raviaholz* (water basin governmental unit) through the *jumat*. Current fees are three *sonomis* per cubic meter. Such fees are based on the energy costs and are uniform throughout the country.

### Credit unions

The third component involves \$3.6 million to establish four credit unions to provide basic production credit lending to farmers of the newly privatized *dekhan* farm. The WB PIU will match farmer contributions to the credit unions 8 to 2 to provide 80 percent of the credit unions initial capitalization and loan funds. The farmer-elected board of the credit union will establish policies, procedures, credit terms and conditions, and savings products based on the needs of the farmer, their creditworthiness and the resources of the credit union. The credit unions are expected to begin operations in mid-July after all documentation is approved for their operation by the NBT and the Ministry of Finance. These credit unions are allowed to operate by a regulatory exception to the banking laws until a new microfinance law is enacted. ACDI/VOCA is providing technical assistance to the credit unions.

## Community Agriculture and Watershed Management

WB staff are preparing a Community Agriculture and Watershed Management project for implementation in early 2004. The project will focus on three valleys: Shazajan (northern high mountains); Toirasu (arid, low valley); and Surkhov (middling). The primary thrust of the project is to help communities organize community priorities for decision-making and action plans. The main features of the program are:

- Fund \$20 million for all three valleys
- Help the community organize into prioritizing economic initiatives important for community economic development
- Allow a wide range of areas in which the project will allow the community to focus, including roads, hospitals, nurseries (horticulture), storage and warehouses, land management, water management, potable water, seed multiplication, and other economic infrastructure

### **B2c. IFC – Farmer Ownership Model, Khujand, Tajikistan**

#### Project description

The IFC project company is Farmers Ownership Model (FOM). FOM was financed on a commercial basis by IFC and on a grant basis by the Swiss State Secretariat for Economic Affairs (SECO). The project is located in the Nov and Zafarabad regions of Northern Tajikistan and may expand thereafter to other regions. The Zafarabad Mcht Association of Farmers of the Zafarabad region and the Andarasoy Association of the Nov region were the most likely candidates to become farm shareholders in the joint stock company. Together, the two associations account for approximately 1,940 hectares of irrigated lands. IFC selected farmers who are least indebted and will eventually expand membership to adjacent farmers, and to others in Southern Tajikistan should the pilot program prove to be successful.

This is an innovative pilot attempt by IFC to alleviate the acute poverty of cotton farmers in Tajikistan by enabling them to take control of their own commercial activities. FOM is owned by the farmers, and uses IFC Loan and SECO grant funds to:

- Purchase and deliver to the farmers a complete input bundle (including seeds, fertilizers, agrochemicals, tools, implements, grain bags, crop storage, equipment rental, picking charges and transport)
- Arrange for processing the farmers' crops
- Sell through its marketing service the farmers' crops directly on the market
- Identify and develop market opportunities and enterprises to assist with improving farmer viability and enterprise diversification

- Provide finance for the farmers to make physical improvements to the irrigation system (e.g. laser land leveling) that will reduce water use and improve water quality and crop yields.

The project brings management skills and financial support to the agricultural sector and demonstrates the economic benefits to be gained by upgrading the quality and quantity of the cotton crop. The technical assistance is managed by Private Enterprise Partnership (PEP), which trains farmers in proper production, irrigation, fertilization and financial management, in addition to appointing the manager. The technical assistance is part of the overall Swiss-IFC Central Asia technical assistance Partnership for Central Asia that has been recently approved by SECO and will be implemented by PEP. The project is expected to increase cotton yield and revenues for farmers currently living in abject poverty. The venture also brings an increase of foreign exchange in the country, as over 80 percent of Tajikistan's cotton is exported.

*International Finance Corporation*

*Notes from meeting with Olim Hamidov, IFC Project Manager*

*Farm Ownership Project—SughdAgroServ Joint Stock Company*

The IFC has invested a modest amount of money to develop an integrated farm management project for cotton production from an association of farmers through marketing of cotton to international buyers. The business operation is structured similar to U.S. cotton cooperatives CalCot and American Cotton. The essential elements of the project are:

- IFC debt investment of \$250,000 for 10 years at 10 percent interest.
- Farmer-invested cash contributions (about \$5 each on average) based on their number of hectares under lease for a total of \$1,600 farmer paid in capital.
- Swiss Development Corporation grant of \$250,000 to the association of farmers established as a joint stock company to become the farmer capital over the life of the project. Special restrictions on retirement of this capital by any association members.
- Technical assistance component of \$1.1 million provided by SDC through IFC PEP to support the development of the association and the integration of the production through marketing activities.
- Fifteen smaller associations or sub-associations developed by the farmers working together to cultivate the land of the association. Membership formed from remnants of former farm brigades, neighbors, former farm manager, and families that knew each other well and previously worked together under the Soviet system. Key sub-association personnel manages the association and its production—farm manager, chief accountant and agronomist.
- Directors of association elected from membership based on criteria established by the association and project support from key members of the sub-associations.

- Leasing and financing services to association members for cotton production:
  - Tractor and machinery pool for use by association members, maintained by association mechanics, and lease charges paid by members based on use and by total membership for general maintenance.
  - Retail inputs (seed, fertilizers (ammonium nitrate), and CPCs) for up to 60 percent of the value of expected cotton harvest made in loans to sub-associations with collateral (cars, tractors, trucks, or urban real estate) taken from the key sub-association individuals—farm manager, chief accountant, and agronomist.
  - Three months training for all sub-association borrowers in projecting revenue, farm management of cash flows and production operations, agronomic techniques to obtain yields needed to make projected revenues and debt service.
  - Loans ranging from \$2,000 to \$60,000.

IFC intends to establish a second in the south in Shaartuz as soon as all of the elements can be assembled, including technical assistance from an appropriate donor. In addition to USAID, IFC is discussing potential technical assistance being provided by CIDA.

#### **B2d. European Union projects**

- *1989 Trade and Co-operation Agreement*. A 10-year trade and economic and commercial agreement was signed with the Soviet Union in 1989 and came into force in April 1990. Until replaced by a new bi-lateral agreement, this remains the contractual basis governing the relations between the EU and all the eleven New Independent States. All Republics except Tajikistan and Azerbaijan have initialed exchanges of letters by which they agree, as successor states to the Soviet Union, to continue to apply the 1989 agreement.
- *Partnership and Co-operation Agreement (PCA)*. No PCA is proposed for Tajikistan at present, given the current instability in that country.
- *Textile agreement*. The EU signed a textile agreement with Tajikistan in July 1993 which gives Tajikistan access to EU markets for all textile products, without quantitative restrictions. This agreement runs until the end of 1999.
- *General Tariff Preferences (GSP)*. Tajikistan has benefited from the GSP since January 1, 1993.
- *EC loan*. A 55 million ECU (MECU) loan has not been reimbursed at the provided date (end of 1996). Following this a Memorandum of Understanding was signed in order to allow Tajikistan to reimburse 6 MECU. A first tranche of 3 MECU was paid but the Tajikistan authorities are waiting new commitments for additional reimbursements.

- *Technical Assistance for CIS (TACIS)*. The 1995 TACIS budget has financed a grant of 4 MECU in the field of agriculture (food production processing and distribution), energy and human resources development. The 1996-1997 TACIS Action Program was adopted in October 1997. Due to the events in the country and for security reasons the TACIS program was suspended for approximately two months (March/April 97). For security reasons, the TACIS program has again been suspended in December 1997 after the death of TACIS expert's wife. TACIS will begin new activities in 2003.

### **B2e. UNDP projects**

The Rural Restructuring Development Project (RRDP) was designed to combine community responsible decision-making, community priority investment and development projects, and irrigation rehabilitation. The project established a *jumat* development committee for establishing priorities and developing a business plan that uses a UNDP-provided revolving fund. Three types of microcredit starting at \$100 were available to groups, larger groups, and individuals, serving the poorest of the poor, for business activities in accordance with the community business plan. Based on loan repayments, the community would continue to loan additional funds to other community members, increasing the fund through earnings on fees. Because the *jumat* development committee conducted the lending decisions, the crediting activities would have lower administrative costs than most microfinance programs. The program would also provide business and accounting training for borrowers.

The RRDP only begins irrigation rehabilitation after the *jumat* development committee has been fully established and community development lending has begun. Most lending in rural areas was for livestock, and for trading and services in urban environments. The RRDP took six months to develop four *jumat* development committees. UNDP received some funding from USAID to work with CAIP in other parts of Tajikistan.

The team subsequently learned that the RRDP was restructured to avoid establishing *jumat* development committee structures that paralleled and competed with the government. In addition, it was reported that the community lending program had a low repayment experience. Given that community bodies are essentially political and not business organizations it is not surprising that the loan repayment was weak.

### **B2f. Other Donor projects**

EBRD Micro and SME Enterprise Lending

#### **Key points:**

- EBRD has been working with Orienbank and Tajiksoderotbank Bank (TVED) to develop a Tajik banking program of lending to the SMEs. Orienbank receives substantial bank technical assistance, training of loan officers, and expatriate management of the SME loan portfolio development and management.

- Eventually the entire loan portfolio and management will be turned over to Orienbank management when EBRD determines that the loan program is sufficiently mature, normally about two to four years.

**Aga Khan Foundation – Dushanbe**  
*Mountain Societies Development Support Program (MSDSP)*

The MSDSP is a program of the Aga Khan Foundation and part of the Aga Khan Development Network, a worldwide group of development organizations. Since its inception in Tajikistan in 1993, MSDSP has been working toward the promotion of equitable and sustainable improvements in rural livelihoods.

**Key points:**

- The purpose of the MSDSP is to strengthen the capability of communities to manage their own resources at the household and village levels in order to improve their standards of living, and to play an active role in civil society.
- The foundation has 430 staff members in Tajikistan with the largest percent working on the MSDSP. With a center in Dushanbe and three regional offices (Gbao, Rasht Valley, and Kstalan) and eight district offices in two regions with administrative staff, and an agronomist, livestock specialist, an irrigation engineer, credit officer, financial planner, and a gender specialist for each district office.
- Private farmers who benefited from MSDSP extension advisory services and technical inputs had on average 81 percent higher yields for wheat and 39 percent for potatoes. The project provides seeds and inputs on a subsidized basis. The original community input supply activity is well developed and they are now operating as private businesses.
- Eleven commodity banks (community storage) were established to hold produce until terms of trade were more favorable.
- Private farmers attend farmer field days and in over 500 demonstration plots.
- Community-based credit programs are available for agricultural inputs, livestock and trade. Terms are 2.0 percent per month and varying lengths of time (six months to three years). A community development fund was established on a revolving basis where the CBOs decided how much to allocate to social or economic development activities. Credit is allocated to agriculture and/or small women-owned enterprise support activities.
- Irrigation rehabilitation remains a major problem for many communities.

**Recommendations:**

- Push privatization process further.

- Cotton sector reform (get the government out of cotton).
  - Marketing of agricultural produce. (Taking advantage of the \$50 million in food imports each year.)
  - Develop agricultural extension.
  - Accumulating farmer debt for cotton contracts needs to be liquidated.
- 

### Swiss Cooperation Office – Dushanbe, Tajikistan

Swiss-funded projects are divided between technical cooperation, financial cooperation, and humanitarian aid. Responsibility for the various types of assistance lies with two donor agencies: the Swiss Agency for Development and Cooperation (SDC) in the Ministry of Foreign Affairs and the Swiss State Secretariat for Economic Affairs (SECO) in the Ministry of Economy and Trade.

#### **Key points:**

- Programs are implemented with partner organizations, local governmental agencies and NGOs.
  - In Tajikistan, the Swiss do not have any direct agricultural programs, but do have agricultural activities under their community development programs. The community-based approach is utilized because it reaches the very poor in rural areas.
  - Support the process of WTO accession for Tajikistan by ensuring coordination between the United Nations Training Institute (UNITAR) and the national government, and by providing consulting services.
- 

### German Agro Action – Dushanbe, Tajikistan

The primary activity of German Agro Action in Tajikistan is seed multiplication and certification.

#### **Key points:**

- The old state system of seed multiplication has been totally disrupted and is currently dysfunctional.

- GAA has been working for about four years on wheat, potato, and buckwheat seed development in collaboration with local farmer associations in Central Tajikistan. The association partners will eventually take over the implementation of the program.
- Selected farms are used to multiply seeds on a type of revolving fund basis. Initial seed supplies are repaid with seed from production and distributed to other multipliers.
- Test varieties are developed on demonstration fields in collaboration with a local research institute. Agronomic information on newly developed varieties is provided in bulletins that also explain crop management techniques.
- GAA works with the Ministry of Agriculture, Department of Seed Certification, to officially register the new varieties and to certify their authenticity. Project related farmers (seed multipliers) can then sell certified seed.
- Access and price of inputs and mechanization are serious problems for most farmers. There is a very limited amount of equipment available for lease during the critical time frame for planting and harvesting. Collective farm managers who control the equipment give priority to individuals and government friends.
- Private farmers need information on land law and land use rights.
- Potatoes are a cash crop in the Rasht valley and provide excellent financial returns for producers of seed and consumption potatoes

---

#### Development Fund – Khujand, Tajikistan

The Development Fund, a local NGO partially funded by USAID and other donors, helped facilitate establishment of a federated farmer association, Sughd Agroindustrial and Agroservices Association, and local farmer associations in each of 14 *raions* in the northern Fergana and Sughd *oblasts*. The federation provides farmer members with a variety of services. The association has established the donor-supported ToJInfor that serves as an information, consulting, and training center for farmer members.

The federated association has worked with a number of agroprocessing and input suppliers in the Khujand/Sughd region including two larger factories (a fruit and vegetable canning factory and a joint venture glass factory supported by EBRD), several small processing facilities canning fruits and vegetables (mostly tomato paste and apricot preserves), a winery, several meat processing facilities, and a milk processing plant that specializes in cheese exported to three CAR countries. Farmers need equipment to improve their crops and added value processing—tractors, small scale production equipment, miniplants for cheese and meat processing, and drying equipment for dried fruit and vegetable production.

The Development Fund is a public noncommercial fund created for participation in the transformation of the socio-economic sphere and development of civil society by supporting

vulnerable populations, such as farmers and businessmen. It is situated in the Sugd area of Tajikistan and has a branch in Hatlon area in Kurgan-Tube. The Development Fund's mission is to increase the social-economic situation of poor families in rural communities using microfinance programs. The following issues can be resolved in this case:

- Support Development Fund to make it sustainable provider of loans in Tajikistan.
- Organize a stable, step-by-step microfinance system of farmers and entrepreneurs involved in agriculture by giving priority to women in rural areas.
- Implement a microfinance program through solidarity groups, which must become the main link to a step-by-step increase of the loan amount
- To create the core group of active community members in order to stimulate change in rural communities.

Development Fund methodology is based on Solidarity Groups (group guarantee loans), a method successfully conducted by different organizations in many countries. The basic principle is as follows:

The loan amount is \$45 up to \$130 and loan interest is two percent per month. Clients organize groups of 5-10 people who know and trust one another, and live or work close by. Independent selection is very important because group members have collective responsibility to guarantee repayment of each member's loan. Solidarity Group members can not receive a second loan if even one of group members has debts. This process is legally registered by a Guarantee Agreement signed by all group members.

Before receiving any loans, clients have 40 hours of training on:

- The basis of micro-financing
- The creation and activity of solidarity groups
- Drawing up a business-plan and cash-flow
- The legal basis of microfinance and appropriate documentation;
- The basis of agribusiness
- Loan re-payment scheduling.

Loan terms are established individually for each client depending on analysis of his business-plan and cash flow. Each solidarity group member is issued an equal loan amount for the first stage, which increases at the beginning of subsequent loan cycles. Repayments of the original loan amount and loan interest are made twice monthly. Practice shows that borrowers working in agriculture need relief from repayment of the original loan amount during the first half of the loan term.

The following brochures have been issued by the Development Fund:

- Concept of Realization of Microfinancing in Countryside
- Model of Microfinancing for Various Target Groups

- Microfinancing for NGOs Working on Microfinancing Programs in Countryside
- Reference Book of a Microfinancial Agent
- Microfinancing for Individual Farms and Microenterprises.

---

### MANIZHA – Information and Education Center - Dushanbe, Tajikistan

MANIZHA is a non-profit organization with a mission to assist in building democratic, civil society in Tajikistan by implementing educational and information programs.

#### **Key points:**

- MANIZHA has been supported by Mercy Corp and Counterpart International.
- They have developed agricultural bulletins and training programs based on needs assessment surveys. Bulletins published in Tajik, Uzbek, and Russian include topics covering pest management, agricultural laws and decrees.
- Training programs include: conflict management, increasing qualifications of farmers; agronomic techniques; land tenure rights and organization of farming, how to privatize land; and the creation of private farms.
- Prepared 60 trainers in a training-of-trainers program in 40 *jumots*. Many trainers are actually faculty at the Agricultural University.
- Having worked with many farmers through the training activities the following observations were offered:
  - Farmer technology and knowledge is 40 to 50 years old—most have no idea of new modern technologies and methods.
  - Farmers are not independent decision makers. For example, they have the legal right to grow what they want but are influenced to grow cotton because they have limited or no opportunities to market any other products
  - Restructuring the old system is not real—there is a new name on the old system. The reality is that new farmers do not have the means to develop farming on their own.
  - There is no access to the finance required to enlarge farms or organize processing.
  - Farmers need training on agronomic, finance, and marketing.

Recommendations include: support and training for small processing facilities; assistance for farmer associations; and training for water user associations.

Ministry of Land Reclamation and Water Resources

*Ahrorov Ahadjon Ayubjonovich, Chief of Department of Investments and Foreign Economic Relations*

**Key points:**

- Requested assistance with WUA establishment—awareness of farmers but also water agencies staff—to explain the WUA working principles and members rights.
- Infrastructure for major canals and distribution structures, pumping stations rehabilitation, parts, repairs or renovations; large canals and drain collector cleaning, repairs of lining, new or repaired cross regulators, siphons, etc.
- On-farm network of irrigation and drainage needs improvements (measuring devices and rehabilitation).
- Associations need radio communication.
- Staff of the water agencies and the ministry of water need TA, training and capacity building so that they can prepare reforms and improve the organization of the sector toward more IWRM and less top down approach.
- WUAs staff need training in the administration, finance, and O&M management aspects.
- WUAs need strengthening in providing small equipment & tools for O&M, since have no start up capital for the office set up, rent, communication equipment utilities and furnishings.
- Farmers need a follow up advice—post privatization help and training in water, agro practices and agribusiness development.
- Need for re-training of specialists in water saving methods, information, communication, and also radio communication (and other hardware) for management of the systems .

---

Gen. Director of Irrigation Institute

*Yarash Ergashevich Pulatov*

**Key points:**

- Monopoly of water administration at the level of the users should be eliminated.
- Assistance in changing of mindset regarding water management at all levels.
- Training Center of the Institute was equipped by computers from the World Bank.

- The program of the Training Center needs to show more practical aspects of irrigation technology—drip irrigation, irrigation timing, land preparation, soil assessment for irrigation needs, etc.—so that better methods for each climatic condition can eliminate water waste and increase water productivity
- Usefulness of experience of foreign experts in policy for IWRM and training of Tajik experts; training should be not only attached to foreign financed projects but established as a program nation-wide
- Post privatization support— for 3-4 years to farmers is needed in advice –the center if expanded in programs and foreign experts (temporarily) could help
- Pricing policy badly needs TA to price water for gravity and pumped systems – and prepare a plan for a long term cost recovery—but no cost for water as a resource.
- The nation needs a good program for organizing farmers/water users. WUAs establishment may be duplication of efforts because associations of *dekhan* farmers are already establishing themselves. For farmers this seems more natural since (maybe) they together own a tractor, buy seeds, fertilizers, make plans – and they can also include the water.

Khalim Rioratovich Khodisiev

*Deputy Chief Oblvodkhoz, Sughd oblast and coordinator for the Fergana Valley water project funded by the Swiss*

### **Key points:**

- The WUA (called Zaravbshon) was successfully and democratically established after farmers came to him to help them create others Promotion and other necessary training materials are being translated into Tajik now.
- Difficult for farms to come up with the registration money of \$300 - \$350.
- USAID tech equipment and measuring devices are good
- The intra-farm network for irrigation and drainage (50-60 percent percent) are in bad shape. Farmers could rehabilitate it themselves if they had cleaning equipment.
- Small grants for starting the work would help, for example: a) in the newly established WUA Zaravshan the *oblavodkhoz* gave them an old lorry but it needs tires and accumulator (six tires are 600, accumulator \$25); b) bags of cement to fix structures and lining would help to start their joint work and save water.
- WUAs have no means to buy furniture, office equipment, or communication.

- Collection rate was not bad— around 60-65 percent—but after the price was raised, the collection rate dropped to 40-45 percent.
- The real cost of water is about four to five times higher in Sughd *oblast* than the tariff, as they have some lifts to 300-350m in five stages—a lot of energy. Policy for pricing needs differentiation.
- The government issued an order on Dec 1, 2001—on conception of rational water use and protection of water resources on territory of Tajikistan—leading to WUA establishment
- The water users fees go to *raivodhoz*, which is funded 85 percent by these fees. One percent of those fees go to *oblavodkhoz* (that should be 85 percent of their income; 15 percent then is supplemented from the Republican budget)

### **B3. Recommendations to the Mission**

The scope of work states that the contractors are to present opportunities (if any) for increasing assistance to the sector that may add value to the activities already being implemented by the offices of EW and EF. This section provides the consultants' recommendations for creating synergies among activities already being implemented as well as recommendations for new activities.

#### **B3a. General integrated agriculture and water resource development model**

This section of the report describes a generalized integrated model that could be implemented in different locations within the four CAR countries. Country-specific recommendations are made under section B3b. The consultants advise USAID designers to consider all elements of the generalized model as they assess the potential of the approach in specific locations.

The consultants recommend that USAID consider designing an integrated agriculture and water resource development activity adapted to local conditions within Tajikistan. We use the term integrated from two perspectives: 1) the integration of value-chain participants (production, processing, marketing, allied industries, and market intermediaries) into a systems approach; and 2) the integration of mutually beneficial donor funded activities into a targeted geographic area to capture potential synergies among existing donor projects.

Within a geographic area the integrated approach would focus existing resources in pilot hydrographic units based on proximity to existing donor resources. This activity would also focus on agro-industries in the water unit such as a fruit and vegetable or cotton industry. Why target enterprises within a hydrographic unit? There are a number of reasons, notably, enterprises in a hydrographic unit: 1) share similar agro-climatic conditions, 2) are part of a common and structured community, 3) share similar constraints and opportunities for growth, 4) have a common enabling/regulatory environment, 5) can provide a more effective water management approach, and 6) enhance the ability to foster necessary cooperation and trust.

The rationale for an integrated approach is based on the need to: 1) facilitate transition from Soviet planned agriculture to market-oriented system, 2) focus on land issues because many agricultural development issues revolve around land rights, ownership, use, including the ability to buy sell and mortgage land, 3) mediate, if not resolve, land tenure and water management issues, 4) recognize sustainable agricultural development including production, processing, finance, and marketing activities, and 5) create synergies among donor projects by focusing diversified resources on common problems.

The primary goal of this approach would be to demonstrate to the GOT how to achieve sustainable growth, through increased efficiency, in agricultural production, processing, and marketing enterprises and the networks in which they operate. Secondary to this goal, the approach will help: 1) reduce poverty, 2) manage natural resources, 3) contribute to national food security objectives, 4) ensure increased revenues for agricultural producers and rural citizens, and 5) build private/public partnerships, sustainable enterprise, and linkages among participating beneficiaries. These goals are consistent with government strategies and thus their willingness to support targeted pilot programs.

## Critical issues

The primary criteria for the selection of a targeted geographic area (hydrographic unit), is the presence of significant donor activity. Implement where resources are available and strive to create synergies among existing projects.

*Caution.* The consultants are not suggesting that USAID and other donor projects integrate their entire work plans to focus on this single geographic or hydrographic unit. We recognize that that would be impractical, if not impossible. What we are suggesting, however, is that the individual projects can dedicate a small portion of their expertise and resources to collaborate in the development of the integrated approach in the target area. For example, the LARC project has 18 offices in Kyrgyzstan, so let us suggest that they locate one office in the target area. Likewise, GTZ conducts agronomic training for farmers throughout Osh and other regions. They will be requested to implement a number of their well developed training modules in the target area. Also, IFDC can implement one demonstration field; MASHAV can implement one drip irrigation activity, etc. The consultants believe that limited, agreed upon, and targeted collaboration is possible within a defined geographic area and will produce the synergies expected to the mutual benefit of all participants.

*Coordination and management.* To be effective, USAID should designate a senior coordinator—a “czar”—to manage the recommended integrated activity. The “czar” should: 1) have extensive business development experience, 2) be able to work independently from any one project, 3) be mandated to liaise with projects, donors and officials, 4) be responsible for developing donor project “integration strategy,” 5) have the authority to negotiate individual MOUs with all pertinent projects, 6) be responsible for monitoring and evaluating impact, 7) facilitate inter-country linkages, 8) be tasked with the collection donor project data on needed policy reform that can be used to foster agro-industrial growth, and 9) be responsible for the dissemination policy reform data and memoranda to interested trade associations and business groups who are able to advocate for policy reform.

## Approach

The Integrated Agriculture and Water Resource Development Activity could be organized into the following four components that correspond with the components of existing donor projects, such as the Pragma EDP project:

- A: Agro-industry Strategy Development and Policy Reform
- B: Association and/or member organization development
- C: Business Advisory Services
- D: Business and Market Linkages

### **Component A: Agro-industry Strategy Development and Policy Reform**

This component would respond to two important needs: 1) agro-industries lack comprehensive strategies for their own development, and 2) agro-industry entrepreneurs can and should lead policy reform efforts.

- **Agro-industry strategy development:** The objective of an agro-industry strategy development would be to bring entrepreneurs together in order to develop agro-industry strategies, where strategies define objectives, constraints, and resource requirements and inform specific action plans. These strategies would be used to orient TA to focus on opportunities and constraint mitigation. Recommended agro-industry strategy development tasks include: 1) The formation of an agro-industry competitiveness council within the targeted geographic area, where the council members would include agro-industry leaders, traders, academic specialists, and public sector representatives. 2) assist the council in the development of an agro-industry strategy, 3) formation of subtopic working groups, 4) assist the working groups in the development of action plans.
- **Policy reform:** The objective of the policy reform activity would be to condition the enabling environment in which these enterprises operate. This would be accomplished by: identifying and prioritizing policy constraints throughout value chain (coordinate information sharing); utilizing agro-industry council's local knowledge and influence to promote policy reform; and by collaborating with associations and NGO's to advocate for reform. Recommended policy reform tasks would include: 1) assist the agro-industry council in policy formation and advocacy, 2) prioritize and target constraints, 3) develop joint policy memoranda, 4) conduct private/public dialogue sessions, 5) facilitate mediation and arbitration activities, 6) land and water user rights, 7) implement awareness campaigns, and 8) collaborate with commercial law and other reform related projects.

### **Component B: Association and/or Member Organization Development**

The objective of an association development component would be to encourage entrepreneurs to form effective member organizations in order to collaborate on 1) joint procurement and marketing mechanisms, 2) organized information diffusion, 3) recurrent training and capacity building, and 4) increase the market orientation of members and democratic processes.

There are different legal forms of member organizations and consideration should be given, depending on resources available in the targeted area. The fundamental question is to focus on a traditional association model or a corporate structure such as the IFC model.

Recommend association tasks include: 1) organization, registration, and governance, and 2) management, agronomic, and business training.

The IFC/Khujand – Farmer ownership model has unique features that include: 1) multi-*raion* representation, 2) mobilized local “champion” entrepreneurs, 3) local and external ownership, 4) strong administration, governance, and accountability, 5) strict business criteria for membership, 6) multi agro-industry involvement (cotton +), 7) significant internal financing mechanisms, and 8) joint input supply and marketing activities.

## **Component C: Business Advisory Services**

The objective of the business advisory services is to increase business capabilities of producers, processors, and market intermediaries. The following needs have been identified for each of these three groups:

- Producers (land users) have limited or no agronomic or animal husbandry education, resource management training, market knowledge, or business skills
- Processors are reliant on old technologies and methods, are not market-oriented, unable to access credit, and they often collude with government
- Market intermediaries provide limited services.

Recommended tasks that focus on producer needs include: 1) technical advice (agronomic, livestock, water management, etc), 2) access to inputs and finance, 3) arbitration and mediation services, 4) appropriate technology advice and access, 5) land and water use rights education, 6) land registration support, 7) land and water dispute resolution, 8) business registration, 9) accounting and bookkeeping training, 10) tax advisory services, 11) water conservation and operations methods, and 12) appropriate irrigation technology. These services could be delivered through associations and/or member organizations.

Recommended tasks that focus on processor needs: 1) business plans (conform to industry strategy), 2) accounting/bookkeeping, 3) quality management, 4) sourcing raw materials and contract production, 5) feasibility analysis, 6) access to finance, 7) advice and access to appropriate technology, 8) corporate registration.

Recommended tasks that focus on market intermediary needs: 1) contracting, 2) transportation cost analysis, 3) cash flow analysis, 4) marketing and promotion.

## **Component D: Business and Market Linkages**

The objective of the business and market linkages component is to facilitate linkages among participants in agro-industry value chain, such as producer-processor linkages, finance linkages, market linkages, and public-private linkages.

Recommended tasks for increasing producer-processor linkages include: 1) production contracting, 2) quality incentives, 3) production financing linked to production contracts, and 4) on-farm quality control training.

The objective of the finance linkages task would be to facilitate financial linkages between borrowers and creditors, in that there is a need to provide a menu of financial options depending on country's formal financial climate.

Recommended tasks for increasing finance linkages include: 1) develop and evaluate credit options, 2) supplier credit, 3) processor forward and delivery contract credit, 4) foreign importer

or cross border credit, 5) bank or micro-finance credit, 5) marketing of project support with creditors to borrowers in order to develop trust, 6) borrower training on financing approaches, 7) loan officer training on agricultural risk analysis, producer/processor cash flows, taxes, and evaluation of borrower character, 8) loan officer training on agricultural loan workout, 9) develop producer/processor credit bureau in associations, 10) develop association based peer pressure on debt repayment, 11) arrange for processor payment to producer through banks, and 12) develop inventory and warehouse receipts credit.

Recommended tasks for increasing market linkages include: 1) export market intelligence, 2) domestic market intelligence, 3) commodity profitability assessments, and 4) knowledge management of data from all projects for policy formation

Recommended tasks for increasing public-private linkages include: 1) need to incorporate local officials and academic professionals in the development process, 2) create mutually beneficial goals and objectives, 3) obtain political will for reform, 4) create sustainability mechanisms, 4) support reform leadership.

### **B3b. Recommendations for Creating Existing Project Synergies in Tajikistan**

In this section the consultants present their recommendations to USAID for activities in Northern and Southern Tajikistan. This separation of recommendations is based on existing agro-climatic, cultural, market proximity, and availability of USAID and other donor resources.

The main theme of these recommendations is to focus and leverage resources—focus existing USAID project resources in selected geographic areas and in a comprehensive manner; and leverage other donor resources to add value to USAID projects.

Recommendations for Tajikistan:

- Recommendation 1: Integrated model for Northern Tajikistan
- Recommendation 2: Integrated model for Southern Tajikistan.
- Recommendation 3: Collaboration with the IFC Farmer Ownership Model project
- Recommendation 4: Implementation of legal advisory centers as part of integrated model activity.
- Recommendation 5: Support for cotton industry reform

#### **Recommendation 1: Northern Tajikistan – Sughd Region (Khujand/Isfara) Integrated agriculture and water resource development activity**

The EDP report dated February 2003 noted that the Sughd Region of Northern Tajikistan has an extraordinary abundance of fruit and vegetables. Moreover, the fruit and vegetable processing sector includes more than 20 plants and glass jar production facilities that are important to the producers. This region also contains a growing number of edible oil production plants which is considered a profitable business and could be considered as part of the targeted agro-industry cluster. Exports of the fruit and vegetable products to Russia exists, but on a limited basis.

Working in the Sughd Region (Khujand/Isfara) could have several synergistic effects with: private medium to large food processing companies with which EDP is working; Mercy Corps' community development such as the village water rehabilitation project; food and vegetable production in the region (dominated by tomatoes and apricots), both suitable for farmer grower marketing organizations; and microfinance institutions operating in the area.

*Recommendation:*

Design and implement an integrated agriculture and water resource activity in a target Sughd Oblast hydrographic unit. Selection of the hydrographic unit should be based on existing donor presence, scope of their work activity, and commitment to coordination efforts.

Consideration on ways to utilize existing USAID resources, such as EDP and TIP, to enhance collaboration with the IFC supported member organization, SughdAgroServ, and other donor projects would be highly recommended.

*Critical issues:*

There are a number of inter-related critical issues that need to be considered if USAID undertakes project design work for the Sughd Region of Tajikistan that centers around the ability of producer-processor-market intermediaries to develop mutually beneficial business relationships. Producers' extremely limited access to seasonal working capital constrains their production capacity and efficiency. Processors are constrained by a shortage of working capital, which further constrains their ability to offer producers/suppliers reliable production contracts. These constraints are further compounded by late payment schemes offered by purchasers of finished products. Markets are underdeveloped and the skills required to develop existing markets are not present to any degree.

*Approach:*

See generalized approach above.

*Time requirements:*

This activity would run concurrently with the Pragma EDP/TIP funding, which is assumed to be two to four years.

*Funding needed to reach program goals:*

Funding would be for a senior business development "czar" and associated working budget. The yearly cost is estimated to be \$350,000 per year.

*Key partner organizations:*

SughdAgroServ – IFC supported member organization  
Water district managers – public/private dialogue

Water user associations – water resource management and cost recovery  
 Local NGO to provide – producer training (e.g., the Development Fund and MANIZHA)  
 Care – community based organization development and micro-credit activities  
 Mercy Corp – CAIP and PIC - community development activities focused on economic development pilots with small-scale fruit and vegetable processors.  
 ACDI/VOCA – targeted farmer-to-farmer activities

**Recommendation 2: Southern Tajikistan – Khatlon Region  
 Integrated agriculture and water resource development activity**

*Recommendation:*

Design and implement an integrated agriculture and water resource activity in a target Khatlon *Oblast* hydrographic unit. Selection of the hydrographic unit should be based on existing donor presence, scope of their work activity, and commitment to coordination efforts.

The EDP project should develop a Khatlon regional office focused on agribusinesses advisory services which would serve as the hub for an integrated development activity.

*Critical issues:*

See critical issues under recommendations for Northern Tajikistan.

*Approach:*

See generalized approach above.

*Time requirements:*

This activity would run concurrently with the Pragma EDP/TIP funding, which is assumed to be two to four years.

*Funding needed to reach program goals:*

Funding would be for a senior business development “czar” and associated working budget. The yearly cost is estimated to be \$350,000 per year.

***Key partner organizations:***

Water district managers – public/private dialogue  
 Water user associations – water resource management and cost recovery  
 Local NGO to provide – producer training (e.g., the Development Fund and MANIZHA)  
 German Agro Action – improved seed program and agronomic technical services  
 Care – community based organization development and micro-credit activities  
 Mercy Corp – CAIP and PIC - community development activities focused on economic development pilots with small-scale fruit and vegetable processors.

ACDI/VOCA – targeted farmer-to-farmer activities

Aga Khan Foundation – MSDSP – agricultural extension services and training

### **Recommendation 3: Collaboration with the IFC Farmer Ownership Model project**

The consultants were impressed with the manner in which the IFC Farmer Ownership Model (SughdAgroServ) is attempting to resolve an array of constraints on agricultural production, processing, and marketing for its membership. The ability to utilize an organization for the provision of technical assistance to improve production efficiency, resolve linkages with processors, and support marketing initiatives for its members is a fine example of an integrated approach to agricultural development. We note that although SughdAgroServ is currently focused on cotton production, processing and marketing, this organization is also involved in the fruit and vegetable industry.

#### *Recommendation:*

Provide targeted support to the IFC Farmer Ownership Model in the development of: a) model cotton ginning business and equipment demonstration site, and b) a bonded warehouse with cotton grading capabilities.

#### *Critical issues:*

- a. Model ginnery. Nearly all of the 32 ginneries in Tajikistan (10 in the North) have antiquated equipment and thus create significant losses for cotton producers who gin their cotton under contract. Furthermore, inefficient management of the ginneries coupled with old technology results in tremendous losses of potential revenues to farmers.
- b. Bonded warehouse. Cotton buyers have to inspect individual bales of cotton and even then do not trust the sellers' evaluation of quality, because they are based on Russian and not international standards. Also, transport and storage of large lots of cotton also present logistic challenges and adds to buyers' costs, which are then passed on to the sellers.

#### *Rationale:*

- a. Model ginnery. Since most cotton producers pay the ginners for their services the ginners are not concerned with efficiency, timeliness, or theft. Improved management and modern equipment will provide IFC cooperative members with significant increases in revenue for their cotton production.
- b. Bonded warehouse. Storage of ginned and graded cotton in a secure and controlled environment, complete with a grading system to international standards, will provide a strong marketing incentive to attract more cotton buyers (domestic and international) to the Khujand cotton market. A bonded warehouse with grading facilities would provide benefits to Tajik producers/sellers by adding confidence to a distrustful system and by helping the cash flow to producers/sellers through a more rapid clearance system.

*Approach:*

a. Model ginnery. USAID should support IFC efforts to identify a U.S. ginning equipment supplier interested in promoting its equipment in Central Asia. The IFC intends to request assistance from the US TDA for feasibility analysis and equipment export funds. USAID could provide technical assistance for training model ginnery staff in maintenance and management of the equipment. USAID could also support periodic demonstration days by co-supporting ginnery managers from throughout Tajikistan, Uzbekistan, Kyrgyzstan, and Kazakhstan.

b. Bonded warehouse. The issue of proving grading services to international standards is currently under discussion with the Ministry of Agriculture, the ADB and World Bank (IFC). The ADB and IFC would like to have the GOT adopt international standards such as the USDA standards and grading system for cotton. The Ministry of Agriculture is ready to adopt Tajik standards that may or may not be compatible with international standards.

The consultants recommend: 1) that USAID join the pending ADB and past IFC initiatives to advocate for the adoption of USDA cotton standards and grading system. The ADB will finance a TA to conduct an assessment of the costs and benefits of a Tajik program versus adopting international standards, whereas USAID should facilitate institutional dialogue between Ministry of Agriculture decision makers, ADB/IFC project managers, and cotton grades and standards technical experts provided by USAID; 2) USAID provide short-term technical assistance to the IFC member organization activity if the GOT adopts or plans to adopt international cotton standards and grading system.

*Time requirements:*

a. Model ginnery. This activity would be tied to the implementation schedule of the IFC member organization model project. Support would be conditioned on the project's member organization's (SughdAgroServ) obtaining through purchase or lease an existing ginnery.

b. Bonded warehouse. This activity would be tied to the implementation schedule of the IFC member organization model project. Support would be conditioned on the project's member organization (SughdAgroServ) obtaining through purchase or lease an existing warehouse.

*Funding needed to reach program goals:*

a. Model ginnery. An estimate of \$60,000 would cover four person months of short-term technical assistance per year, with a maximum of two years.

b. Bonded warehouse. An estimate of \$60,000 would cover four person months of short-term technical assistance per year, with a maximum of one year.

*Key partner organizations:*

- a. Model ginnery. SughdAgroServ – IFC supported member organization
- b. Bonded warehouse. SughdAgroServ – IFC supported member organization

**Recommendation 4: Implementation of legal advisory centers**

The consultants believe that the legal advisory services project implemented in Kyrgyzstan by Helvetas, with USAID support, provides desperately needed legal advice to rural farmers. This successful model should be expanded in Tajikistan (targeted North and South areas) by including land and water user rights education as well. These advisory centers would offer an effective complement to the business advisory services already supported by USAID.

Expand or apply the Kyrgyzstan LARC program to Tajikistan to: 1) facilitate the provision of legal advisory services to local farmers regarding land and water rights, state order, inputs contracts, freedom of production decision, right to market produce, grower delivery contracts with processors or associations, etc., 2) provide explanation and publicity of land rights of all newly privatized farms, 3) provide mediation services to local farmers regarding national and local government, and 4) facilitate preparation of grower and deliver contracts for promoting private vertical integration of production and processing.

**Recommendation 5: Support for cotton industry reform**

Tajikistan governmental bodies are institutionally weak with low capacity at virtually all levels to understand and foster appropriate governmental facilitation of a free market economy. Focused activities that encourage the government to establish an appropriate legal and regulatory framework for a segment of the economy and then to observe the economic growth in that sector that the governmental support facilitates would be the best use of technical assistance funds.

In this regard, an opportunity exists for establishing a commercial cotton grading system in accordance with international standards under the umbrella of a government regulatory framework. This approach would likely result in cotton buyers having more confidence in the quality and consistency of Tajik cotton and therefore pay for the quality that Tajik cotton represents. Tajik cotton producers would receive higher value for their cotton and be able to reinvest money in better inputs, machinery and infrastructure for cotton production. They would be able to afford reasonable rates for water user association for water delivery to support rehabilitation and maintenance of irrigation systems. Although textile firms will be paying more for Tajik cotton, they would know that Tajik cotton bales were graded consistently, lowering resorting and grading costs at the textile firms.

Targeted technical assistance in this area would not be very expensive, be relatively easy to implement—particularly if the government simply put the current government testing facilities up for leasing tender to international testing firms as SGS or Wakefield & Company—and generate industrial effect and revenue growth almost immediately. Because the Tajik economy is so agriculturally focused and cotton representing a high percentage of the sector’s revenue, a

successful cotton grading system program would have immediate and dramatic growth effect on the economy.

### **B3c. Regional issues**

The consultants recommend that USAID considers the potential benefits of developing a Fergana Valley approach that further integrates Kyrgyz (Osh), Uzbek (Ferghana), and Tajik (Khujand/Isfara) activities.

The EDP offices in Osh, Ferghana, and Khujand offer a unique opportunity to advocate enhanced regional trade. Pragma has already implemented joint tri-country trade workshops focused on increased trade among the three countries. These initiatives should be enhanced with participation with other donor projects to create desired synergies. The proposed Fergana Valley seal of quality is an example of the type of regional initiative that could facilitate regional trade and further market integration.

Funding for this regional activity would be drawn primarily from existing EDP and TIP budgets; however, a review of existing budget allocations should be made in order to ensure that sufficient funding for this targeted activity is available for programming. If funds are deemed insufficient then this line item should be increased in order to accommodate the proposed activities. Joint regional activities would be defined in the EDP and TIP work plans.



## **ANNEX A: TAJIKISTAN – COUNTRY PROFILE**

---

Source: US Library of Congress

With an area of 143,100 square kilometers, Tajikistan is about the same size as the state of Wisconsin. Its maximum east-to-west extent is 700 kilometers, and its maximum north-to-south extent is 350 kilometers. The country's highly irregular border is about 3,000 kilometers long, including 430 kilometers along the Chinese border to the east and 1,030 kilometers along the frontier with Afghanistan to the south. Most of the southern border with Afghanistan is set by the Amu Darya (darya is the Persian word for river) and its tributary the Panj River (Darya-ye Panj), which has headwaters in Afghanistan and Tajikistan. The other neighbors are the former Soviet republics of Uzbekistan (to the west and the north) and Kyrgyzstan (to the north).

The lower elevations of Tajikistan are divided into northern and southern regions by a complex of three mountain chains that constitute the westernmost extension of the massive Tian Shan system. Running essentially parallel from east to west, the chains are the Turkestan, Zarafshon, and Hisor (Gisar) mountains. The last of these lies just north of the capital, Dushanbe, which is situated in west-central Tajikistan.

More than half of Tajikistan lies above an elevation of 3,000 meters. Even the lowlands, which are located in the Fergana Valley in the far north and in the southwest, are well above sea level. In the Turkestan range, highest of the western chains, the maximum elevation is 5,510 meters. The highest elevations of this range are in the southeast, near the border with Kyrgyzstan. That region is dominated by the peaks of the Pamir-Alay mountain system, including two of the three highest elevations in the former Soviet Union: Mount Lenin (7,134 meters) and Mount Communism (7,495 meters). Several other peaks in the region also exceed 7,000 meters. The mountains contain numerous glaciers, the largest of which, the Fedchenko, covers more than 700 square kilometers and is the largest glacier in the world outside the polar regions. Because Tajikistan lies in an active seismic belt, severe earthquakes are common.

The Fergana Valley, the most densely populated region in Central Asia, spreads across northern Tajikistan from Uzbekistan on the west to Kyrgyzstan on the east. This long valley, which lies between two mountain ranges, reaches its lowest elevation of 320 meters at Khujand on the Syrdariya. Rivers bring rich soil deposits into the Fergana Valley from the surrounding mountains, creating a series of fertile oases that have long been prized for agriculture.

In Tajikistan's dense river network, the largest rivers are the Syrdariya and the Amu Darya; the largest tributaries are the Vakhsh and the Kofarnihon, which form valleys from northeast to southwest across western Tajikistan. The Amu Darya carries more water than any other river in Central Asia. The upper course of the Amu Darya, called the Panj River, is 921 kilometers long. The river's name changes at the confluence of the Panj, the Vakhsh, and the Kofarnihon rivers in far southwestern Tajikistan. The Vakhsh, called the Kyzyl-Suu upstream in Kyrgyzstan and the Surkhob in its middle course in north-central Tajikistan, is the second largest river in southern Tajikistan after the Amu-Panj system. In the Soviet era, the Vakhsh was dammed at several points for irrigation and electric power generation, most notably at Norak (Nurek), east of Dushanbe, where one of the world's highest dams forms the Norak Reservoir. Numerous

factories also were built along the Vakhsh to draw upon its waters and potential for electric power generation.

The two most important rivers in northern Tajikistan are the Syrdariya and the Zarafshon. The former, the second longest river in Central Asia, stretches 195 kilometers (of its total length of 2,400 kilometers) across the Fergana Valley in far-northern Tajikistan. The Zarafshon River runs 316 kilometers (of a total length of 781 kilometers) through the center of Tajikistan. Tajikistan's rivers reach high-water levels twice a year: in the spring, fed by the rainy season and melting mountain snow, and in the summer, fed by melting glaciers. The summer freshets are the more useful for irrigation, especially in the Fergana Valley and the valleys of southeastern Tajikistan.

Most of Tajikistan's lakes are of glacial origin and are located in the Pamir region. The largest, the Qarokul (Kara-Kul), is a salt lake devoid of life, lying at an elevation of 4,200 meters. In general, Tajikistan's climate is continental, subtropical, and semiarid, with some desert areas. The climate changes drastically according to elevation, however. The Fergana Valley and other lowlands are shielded by mountains from Arctic air masses, but temperatures in that region still drop below freezing for more than 100 days a year. In the subtropical southwestern lowlands, which have the highest average temperatures, the climate is arid, although some sections now are irrigated for farming. At Tajikistan's lower elevations, the average temperature range is 23° to 30° C in July and -1° to 3°C in January. In the eastern Pamirs, the average July temperature is 5° to 10°C, and the average January temperature is -15° to -20°C. The average annual precipitation for most of the republic ranges between 700 and 1,600 millimeters. The heaviest precipitation falls are at the Fedchenko Glacier, which averages 2,236 millimeters per year, and the lightest in the eastern Pamirs, which average less than 100 millimeters per year. Most precipitation occurs in the winter and spring.

### **Population**

Tajikistan's population has been characterized as primarily rural, with a relatively high birth rate and substantial ethnic tensions. Substantial forced relocation has occurred, first as a result of various Soviet programs and then because of the civil war.

By the time Tajikistan became independent, its social structure reflected some of the changes that Soviet policy had consciously promoted, including urbanization, nearly universal adult literacy, and the increased employment of women outside the home. However, the changes were not as far-reaching as the central government had intended, nor did they take the exact form the government wanted. Tajikistan's cities grew, but the republic remained predominantly rural. More women had wage-paying jobs, but society still held traditional women's roles in higher regard. Tajikistan had an especially high birth rate and the highest rate of population increase of all the former Soviet republics.

The 1970 census showed a population of 2,899,602. Overall, the rate of growth, which averaged 3.1 percent per year in the 1970s, rose to an annual average of 3.4 percent in the 1980s. According to the last Soviet census, taken in 1989, Tajikistan's population was 5,092,603. Since that time, no reliable estimate has been available; however, in the 1990s conditions in the country seem likely to preclude continuation of the rapid population increases of the 1970s and 1980s. The main factor in that change is the civil war and its repercussions: an estimated 50,000

dead, extensive shifting of populations within Tajikistan, heavy emigration, and a decreased birth rate caused by political turmoil and a plummeting standard of living. The birth rate was estimated at 3.0 percent in 1992.

Tajikistan's population is concentrated at the lower elevations; 90 percent of its inhabitants live in valleys, often in densely concentrated urban centers. In mid-1991, the overall population density for the republic was 38.2 persons per square kilometer, but density varied greatly among the provinces. In the northern Khujand Province, the density was 61.2; in the two southern provinces of Qurghonteppa and Kulob (which, at the time of the census and again after the civil war, merged into a single province, Khatlon), 71.5; in those districts not part of any province, including Dushanbe, 38.9; and in the easternmost jurisdictions, the mountainous Gorno-Badakhshan Autonomous Province, whose borders encompass more than 40 percent of Tajikistan's territory, only 2.6.

The mountain areas, which never have been densely populated, lost many of their inhabitants beginning in the 1930s through a combination of voluntary migration in pursuit of better opportunities, forced relocations to the lowlands, and the destruction of villages for construction of Soviet-sponsored hydroelectric dams. This pattern reversed partially after 1992, as people fled to the mountains to escape the civil war.

According to the 1989 census, Tajikistan's population was overwhelmingly young and 50.3 percent female. People under age thirty made up 75 percent of the population; people under age fifteen were 47 percent of the total.

In the last two decades of the Soviet era, Tajikistan had the highest birth rate of any Soviet republic. Average family size in the republic, according to the 1989 census, was 6.1 people, the largest in the Soviet Union. The average Tajik woman gave birth to between seven and nine children. The average annual population growth rate for rural Tajikistan in the 1970s and 1980s was higher than the rate for urban areas.

The two main causes of Tajikistan's growth pattern were the high value placed by society on large families and the virtual absence of birth control, especially in rural areas, where the majority of the population lived. Women under the age of twenty gave birth to 5.1 percent of the babies born in Tajikistan in 1989, and a relatively high proportion of women continued to have children late into their child-bearing years. According to the 1989 census, 2 percent of all the babies born in Tajikistan were born to women between the ages of forty and forty-four; 81 percent of those babies had been preceded by at least six other children.

In the late 1980s, the Soviet government reacted to the high birth rate by encouraging family planning. The plan failed because of poor promotion of the pronatalist policy in the European republics of the union, inadequate birth control methods, and the Tajiks' traditional admiration for large families and opposition to birth control. In rural areas, the inadequacies of health care and the reluctance of women to undergo gynecological examinations contributed to the failure of family planning prior to independence.

Statistically, Tajikistan is the least urban of all the former Soviet republics. By the 1980s, the republic had nineteen cities and forty-nine "urban-type settlements" (the term used for populated places developed as part of Soviet planning). At the time of the first Soviet census, in 1926, when Tajikistan still was an autonomous republic of Uzbekistan, only 10 percent of its inhabitants lived in cities. By the 1959 census, urbanization had risen to 33 percent. This growth reflected not only the development of Tajikistan in its own right but the resettlement of people from other parts of the Soviet Union to occupy government, party, and military positions. It also reflected an influx of political deportees. Most of the immigrants went to Tajikistan's two largest cities, Dushanbe and Leninobod. During the period before 1960, some populated places also were reclassified as urban or incorporated into an existing city's boundaries, thus creating an impression of even greater urbanization.

The growth of the urban population continued for most of the postwar era. Between the 1959 and 1979 censuses, Tajikistan's urban population more than doubled, while the rural population increased almost as rapidly. However, by the 1970s the rate of rural population growth had begun to outstrip that of urban areas. After reaching a peak of 35 percent in the 1979 census, the proportion of the urban population declined.

According to the 1989 census, although Tajikistan's urban population increased by 26 percent in the 1980s, the proportion of urban inhabitants in the total population declined to 32.5 percent during that period. By the start of 1991, the republic's five largest cities, Dushanbe, Khujand, Kulob, Qurghonteppa, and Uroteppa, accounted for 17 percent of the total population of the republic. Beginning with the 1979 census, emigration from cities exceeded immigration into them. In the 1980s, urban immigration also came predominantly from within Tajikistan rather than from other Soviet republics, as had been the case in earlier decades. As other ethnic groups emigrated from Tajikistan more rapidly beginning in the late Soviet period, the percentage of Tajiks in the cities rose. Nevertheless, Tajiks in Tajikistan were one of the Soviet nationalities least likely to move from villages to cities. Those who did so were usually single men reacting to the scarcity of employment in rural areas.

Tajikistan's largest city, Dushanbe (which was called Stalinabad from 1929 to 1961), was a Soviet-era development. Badly battered in the Russian Civil War of 1918-21, the village experienced a population drop from more than 3,000 in 1920 to 283 by 1924, and few buildings remained intact. Nevertheless, in 1924 Dushanbe was chosen as the capital of the new Tajikistan Autonomous Soviet Socialist Republic. Centrally planned development projects inaugurated in 1926, 1938, 1965, and 1983 established housing, government office buildings, cultural facilities, and sports and recreational facilities, as well as the municipal infrastructure. With the addition of about 100 factories, Dushanbe also became Tajikistan's industrial center. It is the headquarters of the republic's radio and television broadcasting facilities and film studio. Several institutions of higher education and scholarship are located there.

Tajik society never has been organized by tribal affiliation. The core of the traditional social structure of Tajiks and other sedentary peoples of Central Asia is usually the extended family, which is composed of an adult couple, their unmarried daughters, and their married sons and their wives and children. Such a group normally has joint ownership of the family homestead, land, crops, and livestock. The more prosperous a family, the more members it is likely to have.

In the 1930s, some particularly wealthy Tajik families had fifty members or more. Although Islam permits polygamy, that practice has been illegal in Tajikistan for about seventy years; monogamy is the more typical form of spousal relationship because of the high bride-price traditionally required of suitors.

Traditional family ties remain strong. Tajikistan had one of the highest percentages of people living in families rather than singly in the Soviet Union. According to the 1989 census, 69 percent of the men aged sixteen or older and 67 percent of the women in that age group were married, 2 percent of the men and 10 percent of the women were widowers or widows, and 1.7 percent of the men and 4 percent of the women were divorced or separated. Only 7.5 percent of men over age forty and 0.4 percent of women over forty never had been married.

The strength of the family is sometimes misinterpreted as simply a consequence of Islam's influence on Tajik society. However, rural societies in general often emphasize the family as a social unit, and Islam does not forbid divorce. Grounds for divorce in Tajikistan include childlessness, emotional estrangement (in some cases the result of arranged marriages), a shortage of housing, drunkenness, and economic dissatisfaction. The highest rate of divorce is in Dushanbe, which has an acute housing shortage and a large number of inhabitants belonging to non-Central Asian nationalities. Marriage across nationality lines is relatively uncommon. Ethnically mixed marriages are almost twice as likely to occur in urban as in rural areas.

After the Soviet census of 1989, a wave of emigration occurred. In the absence of a more recent census, the scale of that movement has not been determined reliably. It is known that non-Central Asians, especially Russians, were a large component of the émigré group. According to one estimate, about 200,000 Tajikistani citizens had left by early 1992. Among the causes of emigration in the late Soviet and early independence eras were opposition to the 1989 law that made Tajik the official language of the republic, resentment of the growing national assertiveness of Tajiks, dissatisfaction with the standard of living in the republic, fear of violence directed against non-Central Asians (a fear based partly on the Dushanbe riots of 1990 but intensified by rumor and the propaganda of communist hard-liners looking for support against a rising opposition), and, in 1992, the escalation of political violence into outright civil war. Some of the people who left Tajikistan were Germans and Jews who emigrated not just from the republic but from the Soviet Union altogether.

According to the United Nations High Commissioner for Refugees, 50,000 to 70,000 Tajiks fled from southern Tajikistan to northern Afghanistan to escape the carnage of the civil war that began in 1992. The total number of people who fled their homes during the troubles of 1992 and 1993, either for other parts of Tajikistan or for other countries, is estimated to be at least 500,000. Most of these people probably returned to their home districts in 1993 or 1994, with help from foreign governments and international aid organizations. Regardless of motive, the increased emigration in the late 1980s and early 1990s deprived the republic of needed skilled workers and professionals. The number of doctors and teachers declined, and industries lost trained workers who could not be replaced.

From natural and historical points of view Tajikistan's territory is extremely diverse. Various natural-climatic conditions, traditional agricultural activities, compliant usage of natural

resources make specific imprint on the local nature. These peculiarities subdivide the territory of the country into 4 administrative and 11 ecological regions.

- Leninabad (Sogd) region occupies northern Tajikistan. The population is 2 million people. Population's majority is working in agriculture and industry. The area is 2 million and 610 thousand hectares.
- Khatlon region occupies southern part of the country. The area is 2 million and 710 thousand hectares. The population is 2,5 million people. Main activity is agriculture and only 2-3% of population is busy in industrial sector.
- Mountain-Badakhshan autonomous region occupies eastern Tajikistan. Its territory is 6 million and 431 thousand hectares, which is 45 percent of the total area of the country. The population is 200 thousand people. Most population is busy in agriculture.
- Regions under republican administration occupy central and western Tajikistan. The area is 1 million and 17 thousand hectares. The population is about 1 million and 300 thousand people. Most population is working in agriculture and only 10-15 percent mainly urban population (Dushanbe, Yavan, Gissar, and Tursunzade cities) is busy in industry.

ISO 3166-2 Newsletter number I-4, dated 2002-12-10, changes the name of Leninabad region to Sughd. It also deletes Karategin region, without providing a replacement. It confesses that the area which I have identified as "Regions of Republican Subordination" is now bereft of a code. The newsletter says that the Tajik authorities have been contacted for better information. The ISO code for Sughd is changed from TJ-LN to TJ-SU.

Leninobod oblast was renamed Sogdiiskaya oblast in 2000-02. Most Internet references to this region call it "Sogd oblast". The name evidently comes from that of an ancient region of central Asia, called Sogdiana by English-speaking scholars. Its capital in the Middle Ages was Samarkand, which is now in Uzbekistan. The adjective form of the oblast name is also spelled Sogdiyskaya or Sogdijskaja.

The Government of the Republic of Tajikistan about the end of 2001, lists these statistics:

### Population of Tajikistan by Region

Region	HASC	Population	Area (km. <sup>2</sup> )
Gorno-Badakhshan Autonomous Oblast	TJ.BK	210,000	63,700
City of Dushanbe	TJ.KR	581,100	28,700
<i>Rajons</i> of Republican Subordination		1,338,910	
Khatlon <i>Oblast</i>	TJ.KL	2,172,900	24,600
Sogd <i>Oblast</i>	TJ.LE	1,915,100	26,100
<b>Total</b>		<b>6,341,600</b>	<b>143,100</b>

Note: HASC: Hierarchical administrative subdivision codes.

## **ANNEX B: COTTON SECTOR ISSUES**

---

Source: Asian Development Bank Report and Recommendations  
Proposed Agricultural Rehabilitation Project, Appendix 3

### **Overview**

Average annual production of cotton has been around 350,000 ton (t), but output in 2001 increased to 452,000 t due to expanded crop area and improved yield. Cotton yields had declined markedly from the pre-independence average of more than 2 t/hectare (ha) to the 1997–2001 average of 1.52 t/ha. However, cotton yields significantly improved to 1.76 t/ha in 2001, due to favorable weather and use of adequate and timely agricultural inputs.

Present legislation allows farmers to grow the crop of their choice; there are no state orders. In practice, cotton production remains highly controlled, especially at the local level. Local administrations, if necessary, are able to ensure that a given area grows cotton and allocate resources and inputs to the specific farms.

### **Production, Processing, and Marketing**

Tajikistan was a major supplier of cotton fiber to the former Soviet economy. After independence in 1991 and the collapse of the command economy, Tajikistan's cotton lost both its market and source of financing of production. To keep cotton production, the Government provided direct credit to the state farms, through the National Bank of Tajikistan. The practice was obviously not sustainable due to the country's weak fiscal capacity, and was terminated in 1996 according to the agreement with the International Monetary Fund. In 1997, the Government entered into an agreement to borrow and guarantee a syndicated loan from a banking consortium led by Credit Suisse First Boston with the support of P. Reinhart, the world's second largest cotton trader. This was augmented by credits from other foreign financiers and joint venture trading companies. Reinhart has a majority shareholding in Tajikistan's principal agriculture bank, Agroinvest, which channels the funds to cotton growers through a number of local intermediary companies called "investors." Investors work closely with local administrations. Initially 35 investors were registered with the Cotton Exchange but now only 16 are active in business. At present Agroinvest Bank assigns investors to work in specific districts. Farmers enter into annual production contracts with the investor, which generally recovers the loan through acquisition of a proportion of the crop.

Tajikistan is said to have 27 cotton ginneries but information is available for only 23. Of the 23 ginneries, 20 have been privatized and the Government plans to private the remaining 3 in 2003. The ginneries have a range of shareholders; the Ministry of Agriculture is said to have retained 25 percent of shares in each ginnery. Some investors own ginneries, with one investor owning five of them. There are inherent monopolistic tendencies in cotton ginning, especially where there is only one ginnery in a district. Ginneries have complete control over the specifications of the quantity and quality of cotton fiber produced by their suppliers. There is no independent assessor to whom farmers can turn if they are not satisfied with the ginneries' data. Legislation allows free movement and export of raw cotton, but in practice this is not always the case.

Transport costs are a factor but some local administrations prefer that raw cotton be processed locally to ensure that maximum use is made of local processing facilities

About 30 percent of the cotton produced is consumed in the domestic market and the remaining 70 percent is exported through Riga, Latvia, with P. Reinhart acting as the main exporter, catering for about 95 percent of the cotton export. The marketing of cotton is regulated by the Tajik Universal Goods and Raw Materials Exchange. The exchange issues the necessary export certificates and verifies that the price paid in the contract is in accordance with its regulations. The local “border price” is kept to within 5 percent of the international price based upon the Liverpool Cotton Exchange daily prices. The exchange holds weekly auctions for cotton but the amounts auctioned remain small (less than 5,000 t annually) because the amount of “free” cotton (that not linked to credit agreements) remains small.

### **Farm Debt**

Profitability of cotton declined significantly in the recent years, due to low international market prices and low yields resulting from untimely and inadequate inputs, inadequate irrigation supplies, soil salinization, and a high water table because of poor drainage. The original syndicated loan of \$60 million that the Government borrowed in 1997 from an international banking consortium was not fully repaid and has since become an annually rolled over financing facility for cotton production. The outstanding debt to this facility grew appreciably during 1997-1999 but the rate of increase has moderated over the past 2 years.

The cotton crop requires about \$65 million annually in working capital, of which about 8 percent is estimated to come from farmers own resources. Thus farmers need to borrow about \$60 million annually in working capital. The cost of funds to Agroinvest Bank is about LIBOR+8 percent or approximately 10 percent at current interest rates. Agroinvest Bank lends to the local investor companies at interest rates of 12 percent/annum. The local investors do not charge a specific margin but use several mechanisms to cover their administration and funding costs, including a commission on the provision of inputs, control of ginning margins, and control of the amount of fiber returned or assigned to the farmer.

This financing system is extremely expensive for the farmer who remains the beneficiary of last resort. In effect, the producer is at the end of a financing chain, which ensures that all those involved are paid before the producer. As a result of low yields and low international cotton prices, there are not sufficient resources in the system to enable everyone to achieve a reasonable return on their investment. Consequently, farms are accumulating debt. About 20,000 t of cotton, which is about 3-4 percent of the production at state and collective farms, remains unharvested because of the lack of farm machinery and incentives among workers. The annual cotton subsector revenues in 2001 were approximately \$111.2 million based on that year’s cotton output and prices. From this amount, a total of \$54.2 million is claimed by creditors, including interest on debt. This leaves a residual amount of \$57.0 million to cover all farm production costs. However, the total amount of finance used by cotton growers in 2001 is estimated at \$65.0 million, leaving a deficit of about \$8.0 million or \$30/ha of cotton. These figures relate to a relatively good production year when the average cotton yield was 1.8 t/ha. In previous years, average yields have been as low as 1.3 t/ha. Thus, the explanation for the debt is a combination

of factors, the most important of which is the relatively low productivity levels. An average yield of 2.5 t/ha instead of 1.8 t/ha would enable the subsector to become self-financing. However, this is almost a 50 percent increase in productivity. To achieve this will require a major investment and significant structural changes within the agriculture sector. The current situation is also influenced by low world cotton prices and the high cost of funds to the farmer.

The cost of finance to the farmer is difficult to assess precisely, but it is estimated to be in the region of 21 percent annual interest rate in dollar terms after allowing for all charges and commissions. Farmers generally complain of late delivery of agricultural inputs, particularly fertilizers, and delays in payments for labor, particularly for cotton picking, which is due after the investors take possession of the produce and are, therefore, least concerned to pay. With the 2001 international price of cotton fiber at \$957/t, the Tajik farm gate price of raw cotton, after accounting for local storage and transport and ginning cost, is estimated at \$193/t or about 20 percent of the international price of fiber. This implies that the farm will be responsible for taxes other than sale tax, cost of funds, interest on debts, and utility bills.

The system of cotton balances is prepared by local administrations and is based upon an assessment of the amount of the debt, which the cotton subsector will be required to repay in a given season. The total debt “bill” is translated into a required area of cotton within a region or district assuming certain productivity levels. This target area is allocated to farmers. The farmers without commercial debts are obligated only for their public sector charges.

Countrywide, the accumulated debt of this facility at the end of 2001 was approximately \$67 million, owed to Agroinvest Bank. In addition, farms have debt to a number of public sector agencies. The national level debts of \$91.5 million pertain to about 70 percent of the irrigated land. Farm debt varies from about \$100/ha to more than \$2,000/ha, averaging about \$300/ha, which is roughly equivalent to one year of cotton revenues. Servicing this debt costs at least \$36/ha/year. This is a significant element of total farm cost of production. Farms covering about 40,000 50,000 ha area have enough resources and don't need production loans.

### **A Plan for Recovery**

At the Government's request, the Asian Development Bank (ADB) arranged in Dushanbe on 8 and 9 October 2002 the Roundtable on Farm Debts and Farm Investment Opportunities. A large number of stakeholders, including farmers, local authorities, investors, central government officials, nongovernmental organization and external funding agencies, participated in the discussions.

Candid and open discussions among the stakeholders, conducted for the first time in Tajikistan, resulted in identification of number of problem areas. These included: (i) inadequate, and sometimes unfair contracts executed between investors and farmers, both of which often lack crucial financial/business management capacities; (ii) lack of a clear farm privatization policy, particularly relating to transfer of accumulated farm debts; (iii) lack of alternative rural and microcredit facilities; (iv) inadequacy of the existing collateral law, which does not allow trading of the land-use certificate, and as a result, severely constrains the credit-worthiness of farms; (v)

and the decreasing yield and increasingly erratic and uncertain irrigation water supply due to deteriorating irrigation systems.

Stakeholders' discussions resulted in several general agreements, including (i) the need to writeoff or reschedule debts to Government agencies, such as utility bills; (ii) the need to negotiate with investors to reschedule the accumulated debts based on mutually agreed business and farm production plans, which need to be prepared for each farm; (iii) capacity building for improved farm management and stricter financial management of heavily indebted farms; (iv) measures to accelerate production increases for farms without heavy debts; and (v) promotion of public awareness of farmers' rights and available options to modify the production contracts, including provision of preproduction credit in cash, sale of raw cotton, etc.

The roundtable discussions were concluded with a specific recommendation for the Government to establish a special task force to (i) develop a debt resolution strategy, including examining the debt amounts in various categories (e.g., principal, interest, and penalties), and identifying directed credit, if any, and violations of the contract terms on either party, and (ii) monitoring the implementation of policy reforms, based on the consensus and recommendations at the roundtable discussions. The Government accepted the recommendations, and subsequently requested ADB to provide technical assistance to support the task force.

## **ANNEX C: ASIAN DEVELOPMENT BANK**

---

### **Agricultural Rehabilitation Project brief**

The objectives of the Project are to (i) improve living conditions of the project area farming communities, and (ii) institute measures to sustain benefits of improvements implemented under the Project. The Project's target is to reduce poverty in the project area from 88 percent to 43 percent. The project objectives will be achieved through (i) enhanced crop yields brought about by improved irrigation supplies and drainage as a result of infrastructure improvements; (ii) access to improved potable water, which will reduce efforts in fetching water and improve health standards; (iii) building of the capacity of the water resources institutions, and organization and training of WUAs and water and sanitation councils (WSCs); and (iv) transfer of management of the irrigation, drainage, and potable water supply systems to the beneficiaries after they are adequately trained to manage them. Achievement of these objectives will be monitored and sustainability ensured by transfer of management of the improved systems to the beneficiaries. Infrastructure rehabilitation will result in improved and reliable irrigation and potable water supply and drainage services which, with agriculture support services and capacity building and a under favorable policy environment, will increase farm yields and family incomes. This will lead to improved standard of living and reduced poverty. Proper O&M arrangements and cost recovery will ensure sustained benefits.

The proposed project area comprises three major irrigation systems; (i) Khojabakirgan irrigation system in Sughd region, (ii) Vakhsh irrigation system in the Kurgan-Tyube area of Khatlon region, and (iii) Kyzylsu-Yakhsu irrigation system in Kulyab area of Khatlon region. The selection of the project systems was based on critical need for immediate intervention, potential for development, economic returns, and regional balance. The Project will directly benefit an irrigation service area of 85,000 ha and 471,500 people. The improvement in main diversion works will indirectly benefit an additional irrigation service area of 67,500 ha and additional 359,000 people. Project locations are shown on the Map.

#### **Components and Outputs**

The Project has the following components: (i) agriculture support services for *dehkan* farms; (ii) rehabilitation of irrigation and drainage systems and related institutional support; (iii) improvement of potable water supply systems; and (iv) project management, monitoring, and evaluation. The proposed interventions are being pilot-tested under the ongoing Tajikistan Rural Poverty Reduction Project financed by Japan Fund for Poverty Reduction. The experience gained will be reviewed and evaluated before large-scale replication under the proposed Project.

#### **Agriculture Support Services for *Dehkan* Farms**

This component is primarily for newly-organized *dehkan* farms and was developed on farmers' demand analysis. It consists of the following three programs: (i) farm demonstrations on soil fertility and crop husbandry, (ii) promotion of improved seeds, and (iii) establishment of three FMUs. Each program will be tailored to the specific needs of that system and will be based on a pilot area of about 2,000 ha farmed by an association of small farms, a larger farm earmarked for

reorganization, or a combination of the two. The farming entities involved should also be largely free of debt in order to have the flexibility to promote or implement the program.

Within each pilot area, the demonstration subprogram will undertake a set of activities designed to illustrate the benefits of (i) soil fertility improvement treatments; and (ii) improved, intensified, and diversified cropping technologies. Soil surveys will determine the characteristics of each pilot area's soils, and the treatments required. Treatments may include land leveling, leaching, green manure, and drainage according to whether soils are uneven, saline, sandy, or waterlogged. The demonstration plots will promote appropriate crop production technologies including the use of improved seeds, fertilizers, integrated pest management, and other cultural practices. This subprogram will be implemented by local research institutes of the Agricultural Academy of Sciences supported by the international research institutes. The staff of the local institutions and the Ministry of Agriculture (MOA) will be closely associated in these activities, which will build their capacity to continue the activities after project completion.

The seed subprogram will help farmers acquire certified seeds. The local research institutes will multiply small quantities of selected varieties, clean and calibrate the seeds, and sell them to farms in the rehabilitated irrigation systems. The technologies to be introduced could be funded out of the farmers' personal resources or the existing credit channels.

The Project will, through subsidiary loan agreements, provide \$1.0 million to each of the three FMUs, one in each project system, to finance their establishment and the required machinery, civil works, workshop facilities for maintenance and repair, office equipment, and training. Madad shall provide technical support: (i) to the project management office (PMO) for selection and procurement of farm machinery; (ii) in establishing FMUs; and (iii) to the FMUs, once they are established, in setting up their procedures on operation, repair, and maintenance of the farm machinery. The FMUs will be established initially as state-owned commercial entities using facilities and staff of selected existing FMUs. The local technicians will be trained by the suppliers in repair and maintenance of the procured farm machinery. Their equity stakes will, however, be gradually offered to the public and by project completion, their majority stakes will be sold to the private sector through regional and central branches of Tajik Universal Goods and Raw Materials Exchange by project completion date. The Government will bear the foreign exchange risk and will charge interest rate to cover the administrative charges and foreign exchange risk. The FMUs will provide farm machinery services to *dehkan* farms and collect service charges determined on a commercial basis. Details are in Supplementary Appendix B.

### **Rehabilitation of Irrigation and Drainage Systems and Institutional Support**

The Project will finance rehabilitation of irrigation and drainage facilities of three systems covering about 85,000 ha, provide for capacity building so MWRLR can meet the demands of its changed role as service provider, and organize and train an estimated 30 WUAs. During implementation, pumped irrigation areas will be scrutinized to exclude those which are economically and financially not viable. Simple civil works requiring unskilled labor will be implemented through a food-for-work program.

### *Interfarm Irrigation and Drainage Rehabilitation*

The Project will rehabilitate diversion works, pumping units, canals, drainage collectors, and infrastructure protection works within the following project systems.

*Khojabakirgan Irrigation and Drainage System.* The system was designed as a pump irrigation system. However, the initial construction did not lead to full development of the required irrigation and drainage system. The following works are proposed: (i) at Kairakum Reservoir, provision of a pontoon including installation of 8 link pipes and replacement of pumps at two pump stations; (ii) replacement of 8,720 meter (m) of pressure pipelines; (iii) protection works to safeguard the siphon on the canal; (iv) replacement of cross regulator gates (20); (v) desilting of collector drain reaches; (vi) desilting of inter-farm canal reaches; (vii) rehabilitation of canal linings; (viii) rehabilitation/replacement of drainage pumps and other facilities; and (ix) rehabilitation, repair, and extension of downstream transitions for selected critical canals and drainage structures.

*Vakhsh Irrigation and Drainage System.* The key structures of the system are in imminent danger of collapse, which would leave large areas without water supply. To arrest the situation, the Project will (i) repair canal head works and cross regulator structures of the main canals; (ii) replace 20 interfarm canal off-take structures; (iii) rehabilitate and repair the embankment of part of the Ak-Gaza canal including field investigation to control seepage losses through embankment; (iv) rehabilitate canal linings on 18 canals; (v) desilt critical reaches of 25 interfarm canals; (vi) desilt selected reaches of 30 collector drains; (vii) rehabilitate/replace drainage pumps and other facilities; and (viii) rehabilitate, repair, and extend embankment protections and downstream transitions for approximately 80 canals and drainage structures.

*Kyzylsu-Yakhsu Irrigation and Drainage System.* The proposed rehabilitation works will include (i) diversion structures on the Kyzylsu River and related main canal head works, (ii) cross regulators and off-take structures, (iii) repair of canal linings on selected reaches of 17 canals, (iv) replacement of 10 turbine pumps, (v) desilting of critical reaches of 25 interfarm canals, (vi) desilting of critical reaches of 16 collector drains, (vii) relocation of a drainage culvert in railway embankment, (viii) rehabilitation and repair of the Selbur reservoir embankment to control seepage, and (ix) rehabilitation and replacement of drainage pumps and other facilities.

Support to Water Resources Management Agencies

MWRLR, with its region- and district-level organizations, is the agency with overall responsibility for the water sector. In addition, MWRLR incorporates Selkhozvodoprovodstroy, the agency responsible for constructing rural potable water supply networks and for the O&M of these networks. The Project will assist these agencies' transition to a market-orientated culture by providing training in the planning and allocation of water resources based on meeting financial and environmental criteria, including cost recovery mechanisms. The activities will include help in redefining and realigning roles and responsibilities and in introducing procedures for better O&M and sustainability of project benefits. The Project will formulate a comprehensive long-term program for development and support of WUAs, including (i) identification of budgetary allocations needed for WUA support units at the ministerial, regional, and district levels; and (ii) determination of an overall training program for their staff. The

Project will also provide O&M, communications, and office equipment; and irrigation management software.

### **Organization and Training of Water Users' Associations**

To empower the beneficiaries, particularly the poorer factions, and facilitate sustained project benefits, the Project will support promotion, formation, and training of WUAs in the project area. Priority will be given to parts of the systems that have been privatized and where groups of farmers depend on a common source of water. The Project will ensure that (i) a dialogue is established between the target communities and concerned sector agencies with respect to organization of WUAs, (ii) WUAs are organized in a participatory process, and (iii) the level and role of female participation are promoted in formulation, organization, and management of WUAs.

Initially, the WUAs would take over management of the tertiary systems. As they gain experience, responsibility of the secondary system will also be delegated to them and by project completion, they are expected to be handling O&M of all irrigation and drainage facilities of the Project. The WUAs will be supported in (i) governance and administration, (ii) financial management, (iii) collection of water fees, and (iv) integrated water management.

## **ANNEX D: CONTACT LIST FOR TAJIKISTAN**

---

### **USAID/Dushanbe, Tajikistan**

Konstantin S. Kevorkov, Project Development Specialist/Energy and Water  
C/O U.S. Embassy  
10 Pavlov Street  
734003, Dushanbe, Tajikistan  
Tel: (992-372)-24-88-70  
(992-372)-24-88-78  
Fax: (992-372)-51-00-49  
Email: kkevorkov@usaid.gov

---

### **Pragma – Enterprise Development Project – Dushanbe**

Rhett Power, Country Representative for Tajikistan  
73 Tolstoy Street  
Dushanbe, Tajikistan  
Tel: (992-372)-24-41-94  
Fax: (992-372)-21-39-27  
Email: rpower@pragma-tj.net

---

### **Asian Development Bank – Dushanbe**

M. Ashraf Malik, Head, Project Administration Unit  
Meeting conducted at ADB Office, Dushanbe, Tajikistan  
6 ADB Avenue  
Mandaluyong City  
0401 Metro Manila, Philippines

P.O. Box 789  
0980 Manila, Philippines  
Tel: (632)-632-6920  
Fax: (632)-636-2301  
Email: amalik@adb.org

---

### **The World Bank – Dushanbe, Tajikistan**

Yatimov Bobojon Rajabalievich, Rural Development Officer  
Malik Saifullah M. Khokhar, Consultant, World Bank Washington  
105 Rudaki Avenue  
Dushanbe, Tajikistan  
Tel: (992-372)-21-07-56  
(992-372)-24-21-40  
Fax: (992-372)-51-00-42  
Email: byatimov@worldbank.org

---

**Mercy Corp – Dushanbe, Tajikistan**

Gary R. Burniske, Country Director

#13 Pushkin Street

Dushanbe, Tajikistan

Tel: (992-372)-21-08-60

(992-372)-21-08-64

Fax: (992-372)-51-01-33

Email: garyb@mct.tajnet.com

---

**Care – Dushanbe, Tajikistan**

Genevieve Abel, Country Director

25 Bekhozod Street

Dushanbe, Tajikistan, 734013

Tel: (992-372)-21-17-83

(992-372)-21-00-91

Fax: (992-372)-51-17-78

Email: genny@care.tajnet.com

---

**Aga Khan Foundation – Dushanbe, Tajikistan  
Mountain Societies Development Support Program**

Yodgor Fayzov, General Manager

137, Rudaki Avenue, 4th Floor

Dushanbe, Tajikistan

Tel: (992-372)-24-73-83

Fax: (992-372)-24-76-50

Email: msdspdushanbe@atge.automail.com

yodgorf@atge.automail.com

---

**Swiss Cooperation Office – Dushanbe, Tajikistan**

Hans Peter Reiser, Deputy Head of Office

20, Pavlov Street

Dushanbe, Tajikistan

Tel: (992-372)-24-73-16

(992-372)-24-38-97

Fax: (992-919)-01-50-40

Email: rhp@swisscoop.tojikiston.com

---

**German Agro Action – Dushanbe, Tajikistan**

Heinz Seidler, Regional Representative Tajikistan

Adam Vinaman Yao, Program Manager

20/1 Behzod Street

734013, Dushanbe, Tajikistan

Tel: (992-372)-21-33-68

(992-372)-21-54-79

Fax: (992-372)-21-21-68

Email: intlwork@tajnet.com

---

**ACDI/VOCA – Khujand, Tajikistan**

Shoira Sadykova, Office Manager

Fred Smith, ACDI/VOCA, Vice President

166, K. Khujandi Street

735700, Khujand, Tajikistan

Tel: (992-3422)-6-43-48

(992-3422)-6-22-58

Fax: (992-3422)-6-23-58

Email: shoira@acdivoca.khj.tajik.net

---

**ARD/Checchi – Dushanbe, Tajikistan**

Robert H. Underwood, Chief of Party

4, Govorov Street

734003, Dushanbe, Tajikistan

Tel: (992-372)-21-17-79

(992-372)-21-26-50

Fax: (992-919)-51-00-51

Email: rhunder@justice.com

---

**Bearing Point – Dushanbe, Tajikistan**

Barbara Maria Kaminski, Senior Advisor

Barents Group

5, Kuibysheva Street, Apt. #13

734025, Dushanbe, Tajikistan

Tel: (992-372)-21-61-82

Email: bkaminski@bearingpoint.net

---

**MANIZHA – Information and Education Center - Dushanbe, Tajikistan**

Alisher, Rakhmonberdiev, Director  
34, Room 415  
Dushanbe, Tajikistan  
Tel: (992-372)-21-37-11  
Fax: (992-372)-51-75-58  
Email: [iec\\_manizha@tojikiston.com](mailto:iec_manizha@tojikiston.com)

---

**Republic Center for Farm Privatization – Dushanbe, Tajikistan  
Government of Tajikistan**

Tohir Ostonaev, Director  
44 Rudaki Avenue  
734025 Dushanbe, Tajikistan  
Tel: (992-372)-21-85-66  
(992-372)-21-00-17  
Fax: (992-372)-51-01-17  
Email: [r\\_center@tajnet.com](mailto:r_center@tajnet.com)

---

**IFC – Farmer Ownership Model, Khujand, Tajikistan**

Hans Woldring, Project Manager  
#12 Lenin Street, Apt. 30  
Khujand, Tajikistan  
Tel: (992-3422)-6-72-1  
Fax: (992-3422)-6-24-60  
Email: [hwoldring@ifc.org](mailto:hwoldring@ifc.org)

Olim Khomidov, Investment Officer Southern Europe and Central Asia  
105, Rudaki Avenue  
Dushanbe, Tajikistan  
Tel: (992-372)-21-07-56  
Fax: (992-372)-51-00-42  
Email: [okhomidov@ifc.org](mailto:okhomidov@ifc.org)

---

**SAODAT – Women Public Organization – Khujand, Tajikistan**

Manzura Sultanova, Program Manager  
#121 Firdousi Street, Apt 4  
Khujand, Tajikistan  
Tel: (992-3422)-6-77-03  
Fax: (992-3422)-6-06-30  
Email: [saodat@oyanda.khj.tajik.net](mailto:saodat@oyanda.khj.tajik.net)

---

**Pragma – Enterprise Development Project – Khujand, Tajikistan**

Kaidra Mitchell, Deputy Director BAS

#18 Khojentskaya Street

735701, Khujand, Tajikistan

Tel: (992-3422)-4-32-61

Fax: (992-3422)-6-55-65

Email: kmitchell@pragma-tj.net

---

**Development Fund – Khujand, Tajikistan**

Nasim Gaffarov, Chairman

#3 Lenin Street, Apt 7

735700, Khujand, Tajikistan

Tel: (992-3422)-6-19-08

Fax: (992-3422)-6-67-49

Email: mf\_devfd@mail.ru

---

**Yarash Ergashevich Pulatov, Gen. Director**

Tajik Research Institute of hydraulic engineering and land reclamation

5/1 Shamsi str., Dushanbe

Tel: 992-372- 35 35 23, 36, 59 40

Email: Yarash@tojikistan.com

---

**Khalim Rioratovich Khodisiev**

Depty chief Oblvodkhoz, Sogd oblast

Tel: 992-3422 -63493, 40913-

Dispatch, 6-0722

Email:khalim@cada.khj.tajik.net

---

**Tajikistan Research Institute of Hydraulic Engineering and Land Reclamation**

Yarash Ergashevich Pulatov, Gen. Director

5/1 Shamsi str., Dushanbe

Tel: 992-372- 35 35 23, 36, 59 40

Email: Yarash@tojikistan.com

---

**Deputy Chief Oblvodkhoz, Sogd oblast**

**Khalim Rioratovich Khodisiev**

Tel: 992-3422 -63493, 40913-

Dispatch, 6-0722

Email: khalim@cada.khj.tajik.net

---

**Ministry of Land Reclamation and Water Resources (MLRWR)**  
**Chief of Department of Investments and Foreign Economic Relations**  
**Ahrorov Ahadjon Ayubjonovich**  
5/1 Shamsi St.  
Dushanbe  
Tel. 992372-357668  
Email: [ahad\\_iwrm@tojikiston.com](mailto:ahad_iwrm@tojikiston.com)